LO: Deconstruct Word Questions

Date: 24/04/20

Deconstructing Word Questions

Year 6

Task Build-Up

The tickets cost £36 each

DECONSTRUCTING WORD QUESTIONS – Y6

TASK BUILD-UP

Becky collected 24 shells.

Becky collected 7 shells fewer than Abby.

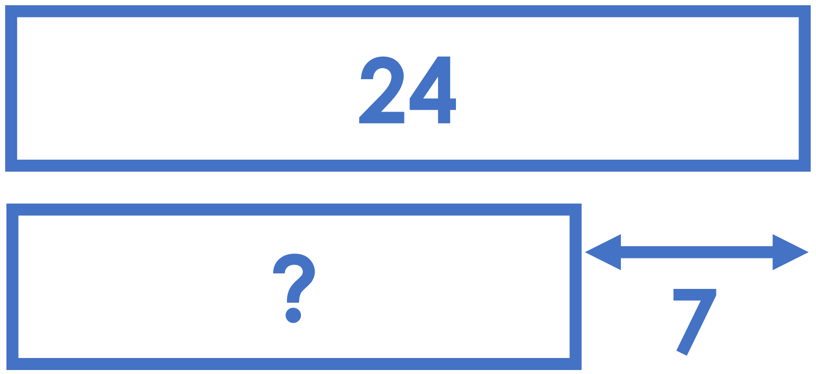
How many shells did Abby collect?

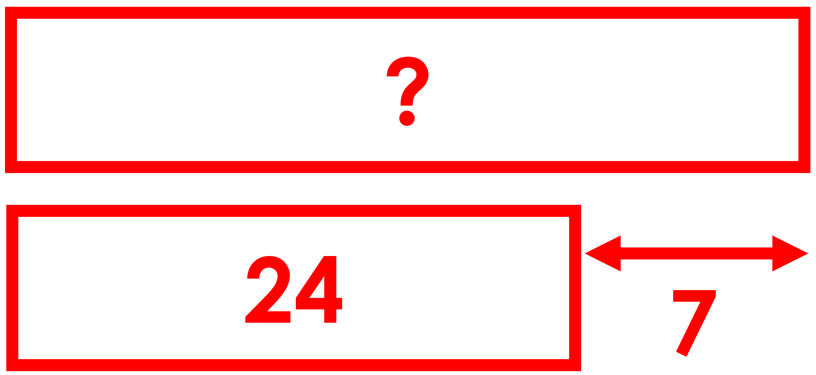
Becky collected 24 shells.

Becky collected 7 shells fewer than Abby.

How many shells did Abby collect?

Which bar model represents the question?





Mike has 30 stickers.

Mike has 12 more stickers than James.

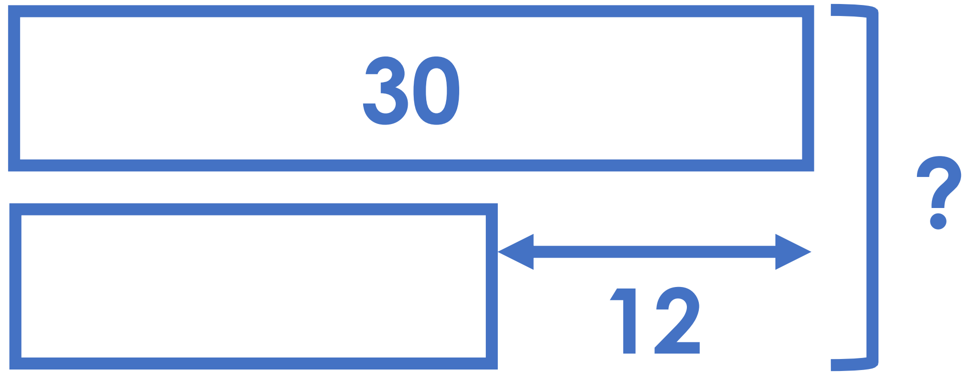
How many stickers do they have in total?

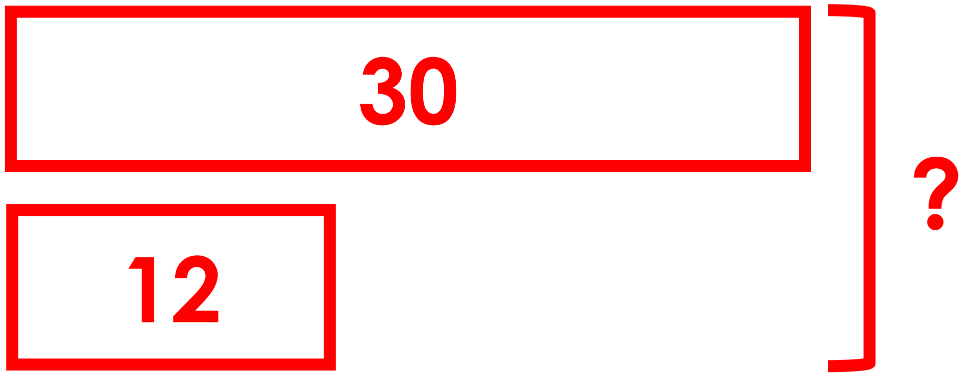
Mike has 30 stickers.

Mike has 12 more stickers than James.

How many stickers do they have in total?

Which bar model represents the question?





Sita and Holly have 14 grapes in total.

Sita has 4 more grapes than Holly.

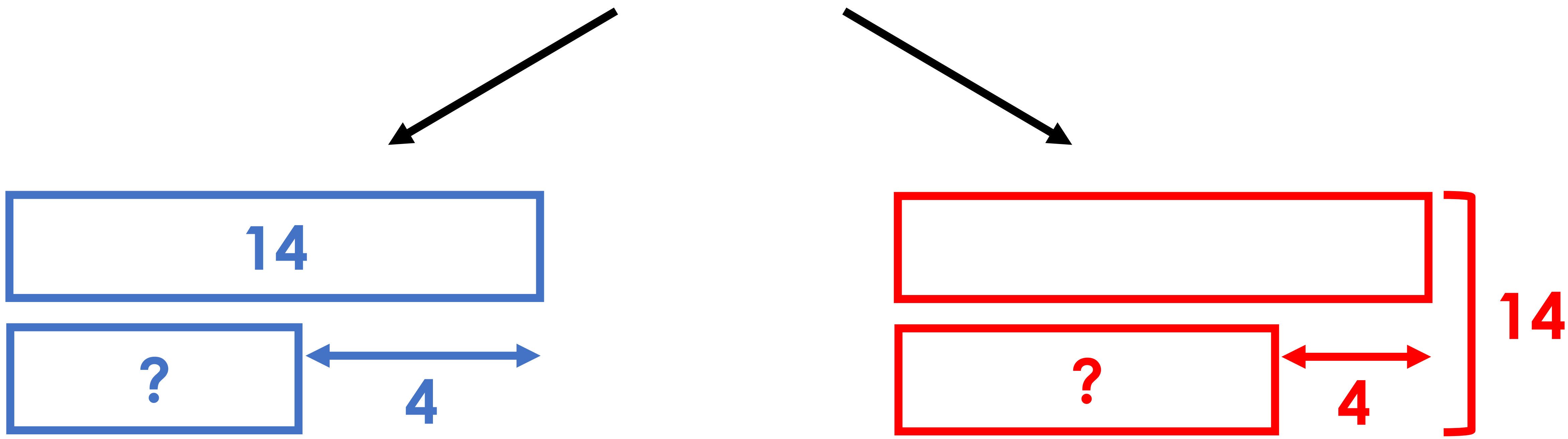
How many grapes does Holly have?

Sita and Holly have 14 grapes in total.

Sita has 4 more grapes than Holly.

How many grapes does Holly have?

Which bar model represents the question?



Mark and Karl have £80 in total.

Mark has £10 more than Karl.

How much money does Mark have?

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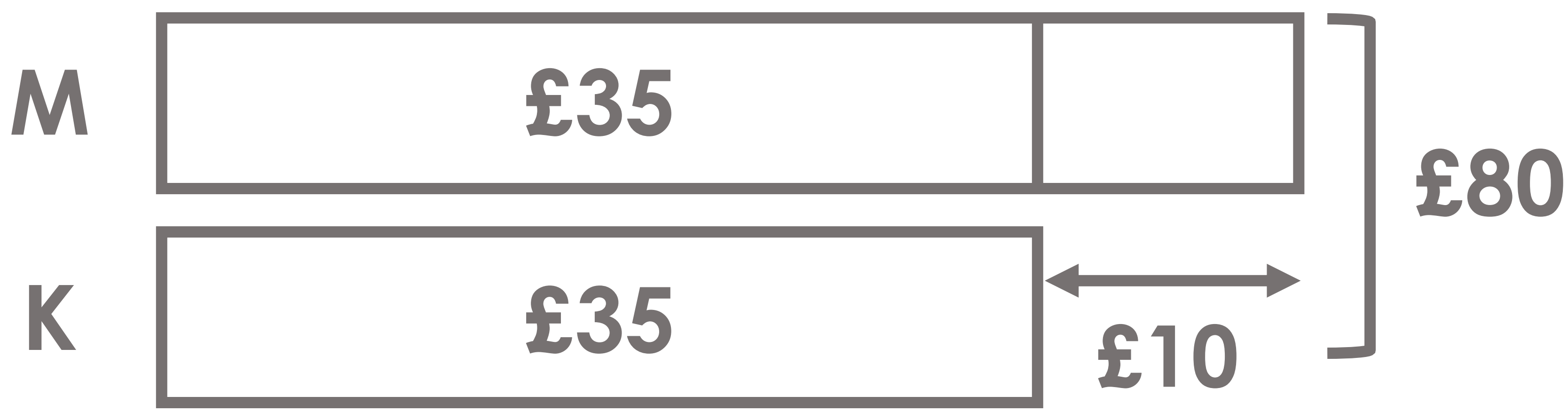


Mark and Karl have £80 in total.

Mark has £10 more than Karl.

How much money does Mark have?

Val, Holly and Kara have £90 in total.

Val has £10 less than Holly.

Holly has £10 less than Kara.

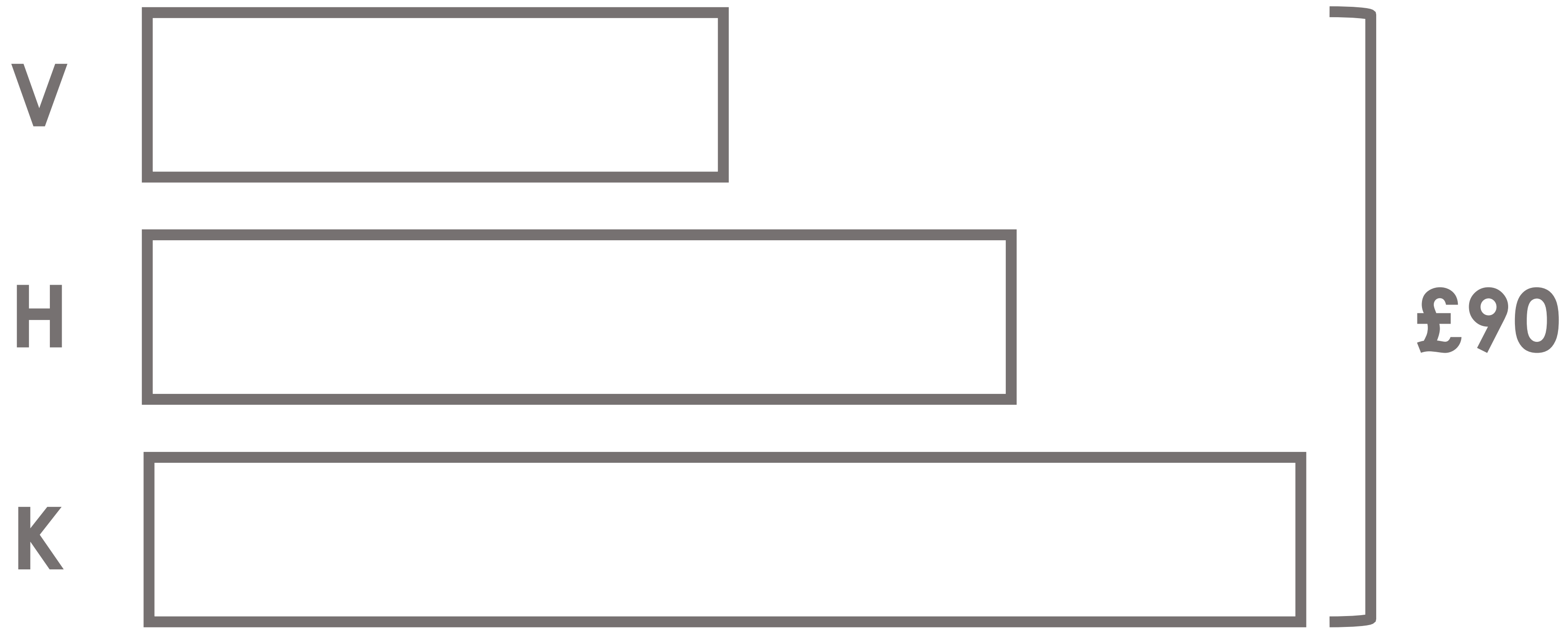
How much money does Val have?

Val, Holly and Kara have £90 in total.

Val has £10 less than Holly.

Holly has £10 less than Kara.

How much money does Val have?

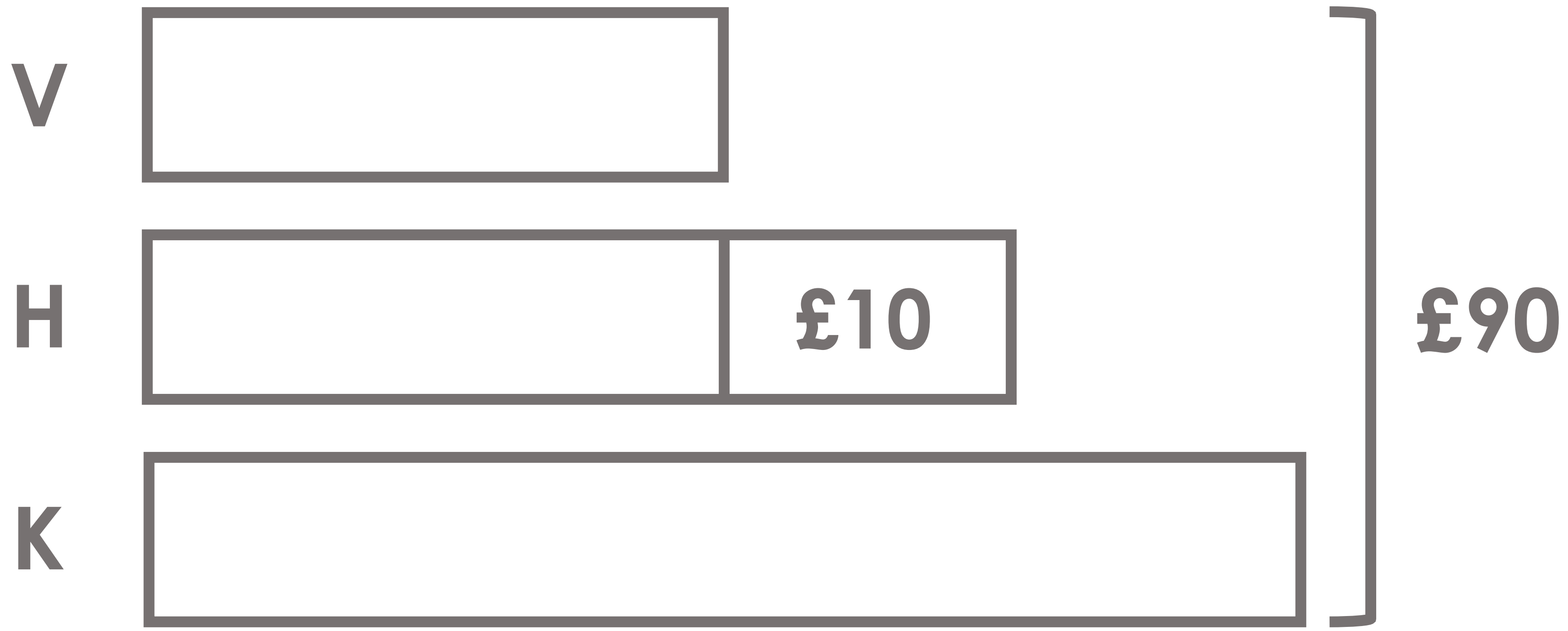


Val, Holly and Kara have £90 in total.

Val has £10 less than Holly.

Holly has £10 less than Kara.

How much money does Val have?



Val, Holly and Kara have £90 in total.

Val has £10 less than Holly.

Holly has £10 less than Kara.

How much money does Val have?

Val, Holly and Kara have £90 in total.

Val has £10 less than Holly.

Holly has £10 less than Kara.

How much money does Val have?

Swimming Pool Prices
Adults: £6.50
Children: £3.50

Janet and her 3 children go swimming.

What could the question be?

Swimming Pool Prices

Adults: £6.50

Children: £3.50

Janet and her 3 children go swimming.

How much change does she get?

Swimming Pool Prices
Adults: £6.50
Children: £3.50

Janet and her 3 children go swimming.

How much change does she get?

What information must be given?

Swimming Pool Prices

Adults: £6.50

Children: £3.50

Janet and her 3 children go swimming.

She pays with a **£20** note.

How much change does she get?

Swimming Pool Prices

Adults: £6.50

Children: £3.50

Janet and her 3 children go swimming.

She pays with a **£20** note.

How much change does she get?

£20			
£6.50	£3.50	£3.50	£3.50

Swimming Pool Prices

Adults: £6.50

Children: £3.50

Janet and her 3 children go swimming.

She pays with a **£20** note.

How much change does she get?

£20

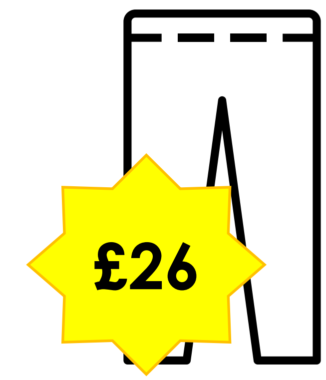
£6.50	**£3.50**	**£3.50**	**£3.50**	**£3**

Money Transactions

Build 1

Shirt

Trousers



missing information

missing question

missing information

missing question

missing information

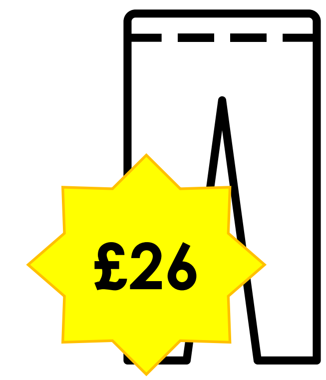
missing question

Money Transactions

Build 1

Shirt

Trousers



missing information

How much change does he get?

Lee has £50.

missing question

What could this say?

missing information

How many shirts does he buy?

Money Transactions

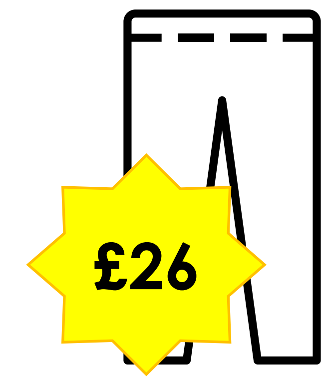
Build 1

Nick has £40. He buys two shirts.

How much change does he get?

Shirt

Trousers



Lee has £50.

missing question

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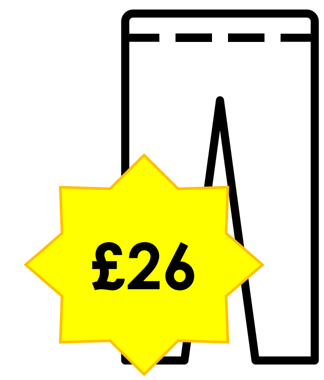
How many shirts does he buy?

Money Transactions

Build 1

Shirt

Trousers



Nick has £40. He buys two shirts.

How much change does he get?

Answer: £4

Lee has £50.

missing question

What could this say?

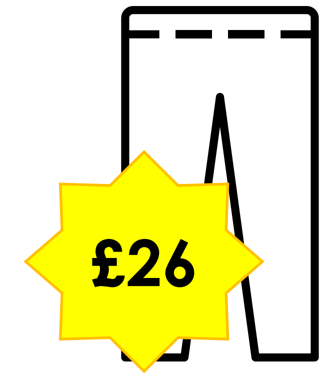
missing information

How many shirts does he buy?

Build 1

Shirt

Trousers



Nick has £40. He buys two shirts.

How much change does he get?

Answer: £4

Lee has £50.

How many pairs of trousers can he afford?

What could this say?

missing information

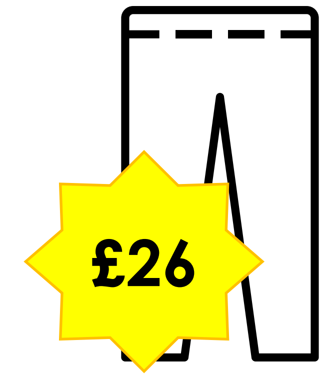
How many shirts does he buy?

Money Transactions

Build 1

Shirt

Trousers



Nick has £40. He buys two shirts.

How much change does he get?

Answer: £4

Lee has £50.

How many pairs of trousers can he afford?

Answer: 1 pair

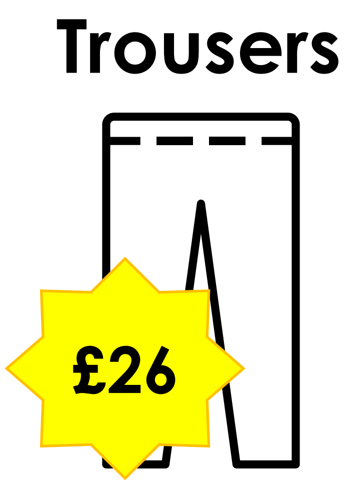
What could this say?

missing information

How many shirts does he buy?

Money Transactions

Build 1



Nick has £40. He buys two shirts.

How much change does he get?

Answer: £4

Lee has £50.

How many pairs of trousers can he afford?

Answer: 1 pair

Max buys a pair of trousers and some shirts. He spends £80.

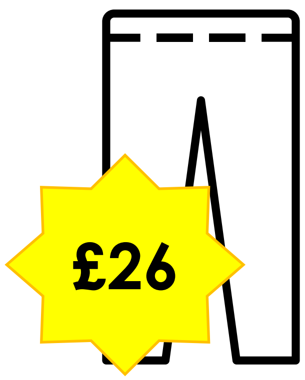
How many shirts does he buy?

Money Transactions

Build 1

Shirt

Trousers



Nick has £40. He buys two shirts.

How much change does he get?

Answer: £4

Lee has £50.

How many pairs of trousers can he afford?

Answer: 1 pair

Max buys a pair of trousers and some shirts. He spends £80.

How many shirts does he buy?

Answer: 3 shirts

Lee has a 2 year-old son called Harvey.

Lee is **twice as tall** and **five times as heavy** as Harvey.

One-Step Question

Multi-Step Question

What could the questions be?

Lee has a 2 year-old son called Harvey.

Lee is **twice as tall** and **five times as heavy** as Harvey.

Lee is 170cm tall. **How tall is Harvey?**

Multi-Step Question

Lee has a 2 year-old son called Harvey.

Lee is **twice as tall** and **five times as heavy** as Harvey.

Lee is 170cm tall. **How tall is Harvey?**

170cm ÷ 2 = 85cm

Multi-Step Question

Lee has a 2 year-old son called Harvey.

Lee is **twice as tall** and **five times as heavy** as Harvey.

Lee is 170cm tall. **How tall is Harvey?**

170cm ÷ 2 = 85cm

Harvey weighs 14kg. **How much heavier is Lee than Harvey?**

Lee has a 2 year-old son called Harvey.

Lee is **twice as tall** and **five times as heavy** as Harvey.

Lee is 170cm tall. **How tall is Harvey?**

170cm ÷ 2 = 85cm

Harvey weighs 14kg. **How much heavier is Lee than Harvey?**

Step 1: Lee's weight is 14kg × 5 = **70kg**

Lee has a 2 year-old son called Harvey.

Lee is **twice as tall** and **five times as heavy** as Harvey.

Lee is 170cm tall. **How tall is Harvey?**

170cm ÷ 2 = 85cm

Harvey weighs 14kg. **How much heavier is Lee than Harvey?**

Step 1: Lee's weight is 14kg × 5 = **70kg**

Step 2: The difference is 70kg – 14kg = **56kg**

Zack gets to work either by cycling or driving.

It takes Zack 3 times as long to get to work when he cycles.

Multi-Step Question

What could the question be?

Zack gets to work either by cycling or driving.

It takes Zack 3 times as long to get to work when he cycles.

How much longer does it take Zack to cycle to work than to drive?

Zack gets to work either by cycling or driving.

It takes Zack 3 times as long to get to work when he cycles.

How much longer does it take Zack to cycle to work than to drive?

What information must be given?

Zack gets to work either by cycling or driving.

It takes Zack 3 times as long to get to work when he cycles.

It takes Zack **20 minutes** to drive to work.

How much longer does it take Zack to cycle to work than to drive?

Zack gets to work either by cycling or driving.

It takes Zack 3 times as long to get to work when he cycles.

It takes Zack **20 minutes** to drive to work.

How much longer does it take Zack to cycle to work than to drive?

Step 1: Zack's cycle takes $20 \times 3 =$ **60 minutes**

Zack gets to work either by cycling or driving.

It takes Zack 3 times as long to get to work when he cycles.

It takes Zack **20 minutes** to drive to work.

How much longer does it take Zack to cycle to work than to drive?

Step 1: Zack's cycle takes $20 \times 3 =$ **60 minutes**

Step 2: The difference is $60 - 20 =$ **40 minutes**

A choir is holding a concert for charity.

Adult tickets cost **£12**. Child tickets cost **£7**.

How much money is raised?

What information must be given?

A choir is holding a concert for charity.

Adult tickets cost **£12**. Child tickets cost **£7**.

130 adult tickets and **70** child tickets are sold.

How much money is raised?

A choir is holding a concert for charity.

Adult tickets cost **£12**. Child tickets cost **£7**.

130 adult tickets and **70** child tickets are sold.

How much money is raised?

130 × £12 = £1560

70 × £7 = £490

£1560 + £490 = <u>£2050</u>

A circus is holding a concert for charity.

Adult tickets cost **£11**. Child tickets cost **£6**.

How many child tickets are sold?

What information must be given?

A circus is holding a concert for charity.

Adult tickets cost **£11**. Child tickets cost **£6**.

120 adult tickets are sold. In total, **£1800** is raised.

How many child tickets are sold?

A circus is holding a concert for charity.

Adult tickets cost **£11**. Child tickets cost **£6**.

120 adult tickets are sold. In total, **£1800** is raised.

How many child tickets are sold?

120 × £11 = £1320

£1800 – £1320 = £480

£480 ÷ 6 = <u>80 child tickets</u>

Max has **3** times as many conkers as Ben.

How many conkers does Ben have?

What information could be hidden?

Max has **3** times as many conkers as Ben.

Altogether, they have **12** conkers.

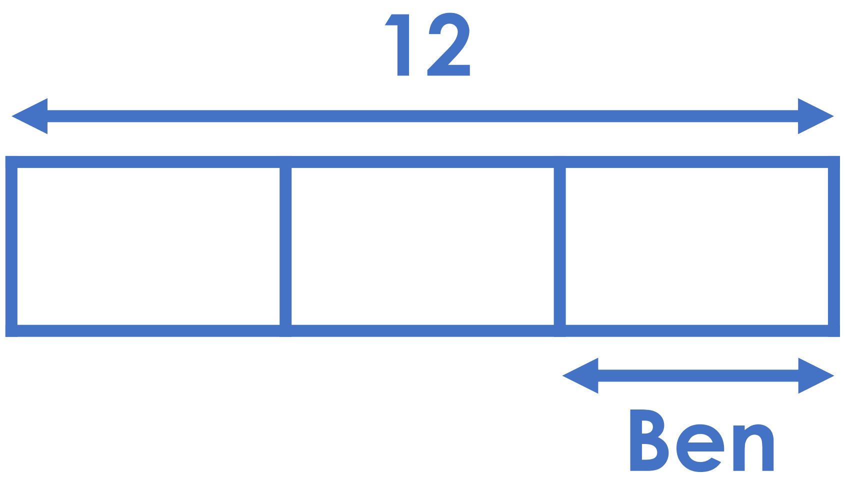
How many conkers does Ben have?

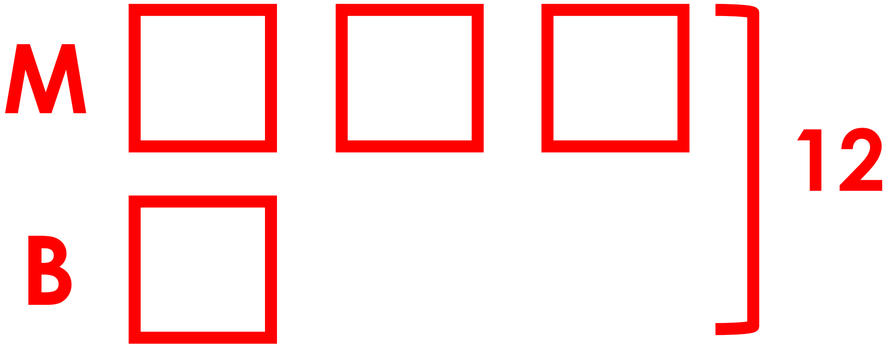
Max has **3** times as many conkers as Ben.

Altogether, they have **12** conkers.

How many conkers does Ben have?

Which picture represents the question?





For every **3** seeds that were planted, **1** seed grew.

60 seeds were planted.

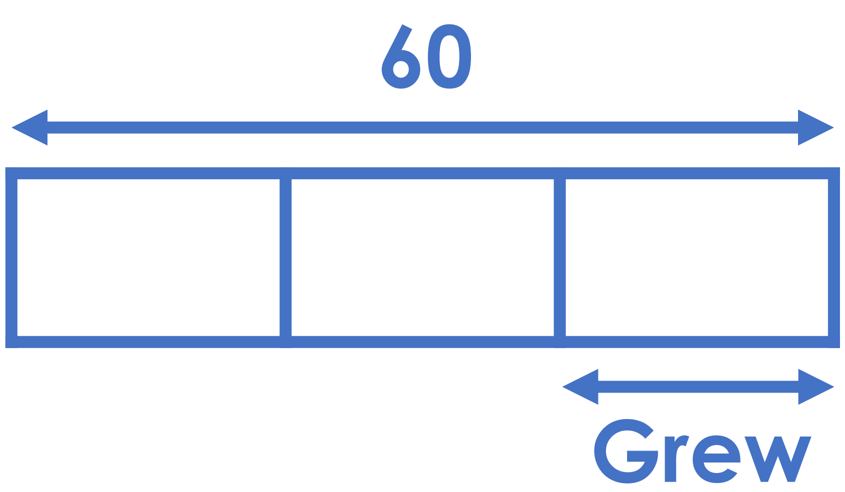
How many seeds grew?

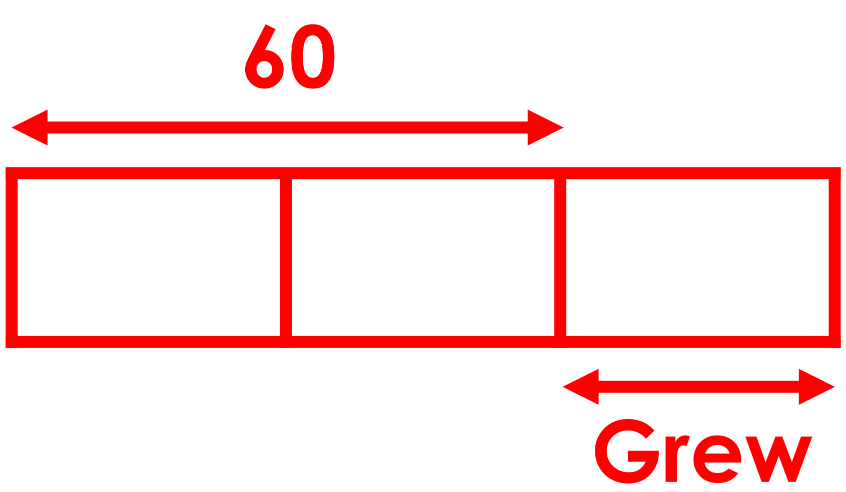
For every **3** seeds that were planted, **1** seed grew.

60 seeds were planted.

How many seeds grew?

Which picture represents the question?





There are **3** times as many children as adults at the park.

How many adults at the park?

What information could be hidden?

There are **3** times as many children as adults at the park.

There are $\boxed{}$ more children than adults at the park.

How many adults at the park?

There are **3** times as many children as adults at the park.

There are $\square$ more children than adults at the park.

How many adults at the park?

What could the missing number be?

What number could the missing number <u>not</u> be?

There are **3** times as many children as adults at the park.

There are $\boxed{\mathbf{18}}$ more children than adults at the park.

How many adults at the park?

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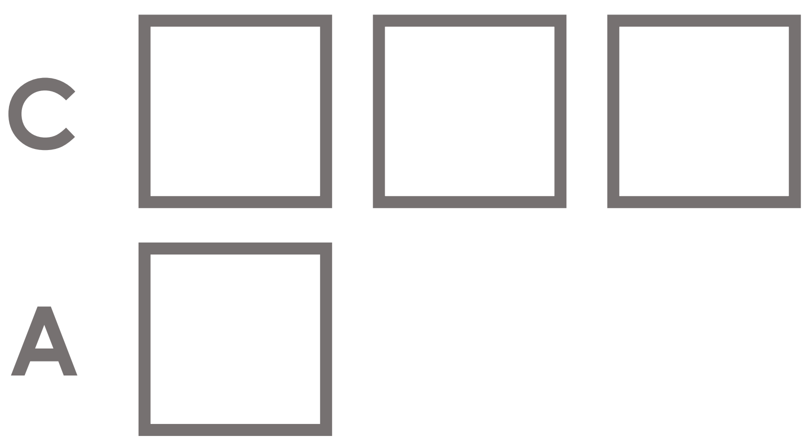
How many adults at the park?



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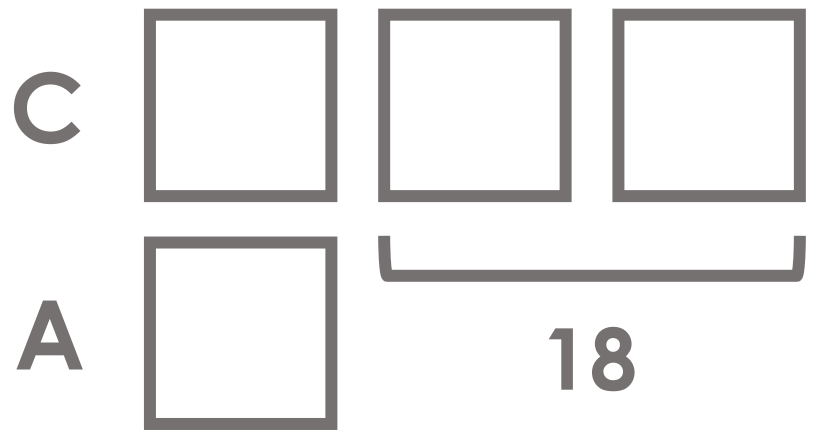

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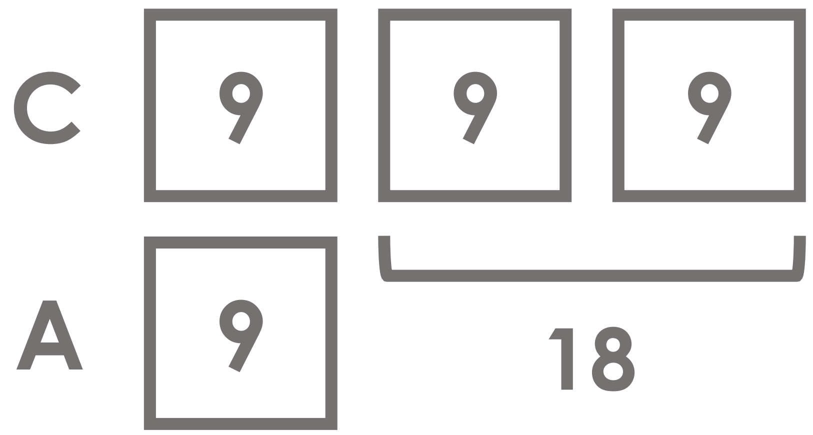

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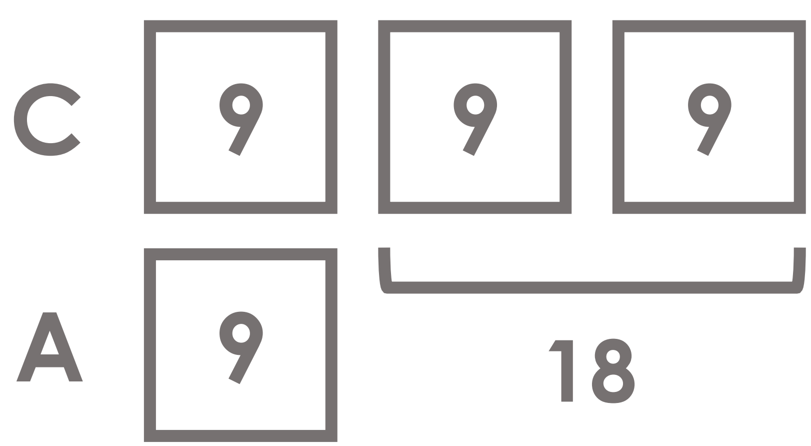


9 adults

There were **twice** as many children as adults in the swimming pool.

Then, **6** adults got in the pool.

How many children are there in the swimming pool?

What information could be hidden?

There were **twice** as many children as adults in the swimming pool.

Then, **6** adults got in the pool.

Now there are the same number of children as adults in the swimming pool.

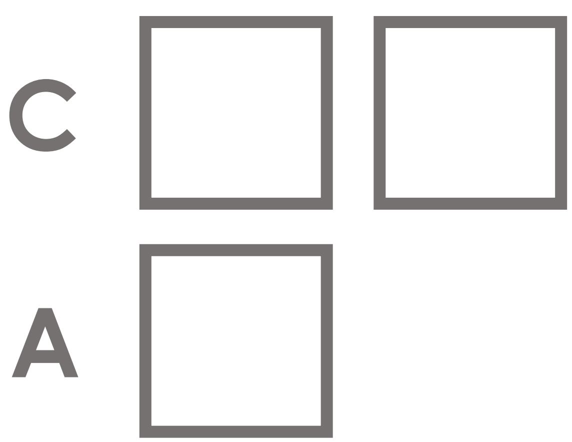
How many children are there in the swimming pool?

There were **twice** as many children as adults in the swimming pool.

Then, **6** adults got in the pool.

Now there are the same number of children as adults in the swimming pool.

How many children are there in the swimming pool?



There were **twice** as many children as adults in the swimming pool.

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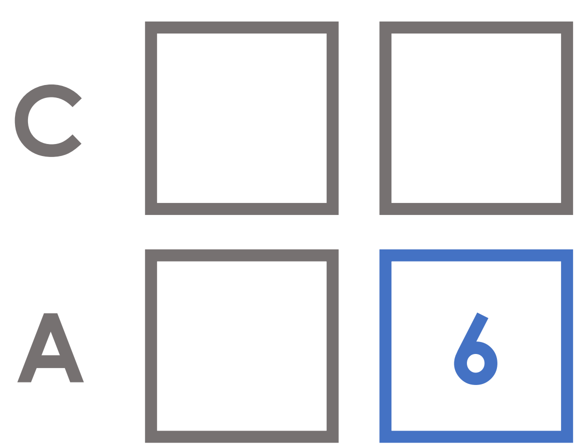

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Then, **6** adults got in the pool.

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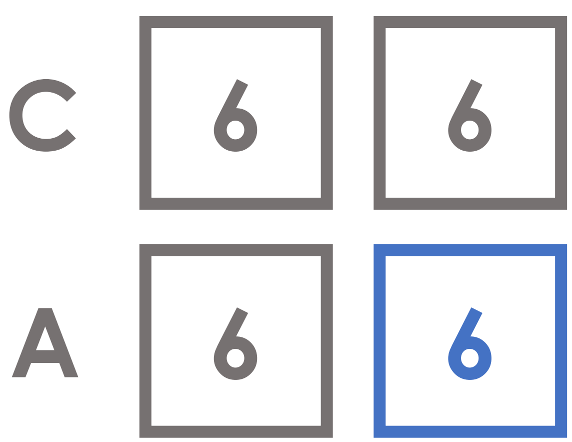
How many children are there in the swimming pool?



There were **twice** as many children as adults in the swimming pool.

Then, **6** adults got in the pool.

Now there are the same number of children as adults in the swimming pool.

How many children are there in the swimming pool?

C	6	6
A	6	6

12 children

90	children going on a school trip.
	children can be seated on a bus.
	buses needed.

Give a possible answer.

90	children going on a school trip.
18	children can be seated on a bus.
	buses needed.

Interpreting Remainders

Build 1

90	children going on a school trip.
18	children can be seated on a bus.
	buses needed.

How many 18s in 90?

$18 \times 5 = 90$

Interpreting Remainders

Build 1

90	children going on a school trip.
18	children can be seated on a bus.
5	buses needed.

How many 18s in 90?

$18 \times 5 = 90$

5 buses needed.

Build 1

75	children going on a school trip.
18	children can be seated on a bus.
	buses needed.

75	children going on a school trip.
18	children can be seated on a bus.
	buses needed.

How many 18s in 75?

18 × 4 = 72 18 × 5 = 90

75 children going on a school trip.

18 children can be seated on a bus.

5 buses needed.

How many 18s in 75?

$18 \times 4 = 72$ $18 \times 5 = 90$

5 buses needed.

4 people go to a café.

In total, they spend **£41**

Each person needs to pay

$\boxed{4}$ people go to a café.

In total, they spend $\boxed{£41}$

Each person needs to pay $\boxed{}$

Which Answer?

£10

£10.10

£11

£10.25

4 people go to a café.

In total, they spend **£41**

Each person needs to pay **£10.25**

Which Answer?

£10

£11

£10.25

£10.10

Zara is making drinks.

She has **litres** of juice.

How many drinks can Zara make?

What information must be given?

Interpreting Remainders

Build 2

Zara is making drinks.

She has **litres** of juice.

There is **ml** of juice in each drink.

How many drinks can Zara make?

Interpreting Remainders

Build 2

Zara is making drinks.

She has **litres** of juice.

There is **ml** of juice in each drink.

How many drinks can Zara make?

Answer: 11 drinks

The hidden numbers could be… and…

Zara is making drinks.

She has **4 litres** of juice.

There is **ml** of juice in each drink.

How many drinks can Zara make?

Answer: 11 drinks

The hidden number could be…

Zara is making drinks.

She has **4 litres** of juice.

There is **350ml** of juice in each drink.

How many drinks can Zara make?

Answer: 11 drinks

350ml × 11 = 3850ml

350ml × 12 = 4200ml (more than 4 litres)

Missing Fraction

Build 1

$$\frac{\boxed{3}}{\boxed{4}} + \frac{\boxed{1}}{\boxed{8}} = \frac{\boxed{}}{\boxed{}}$$

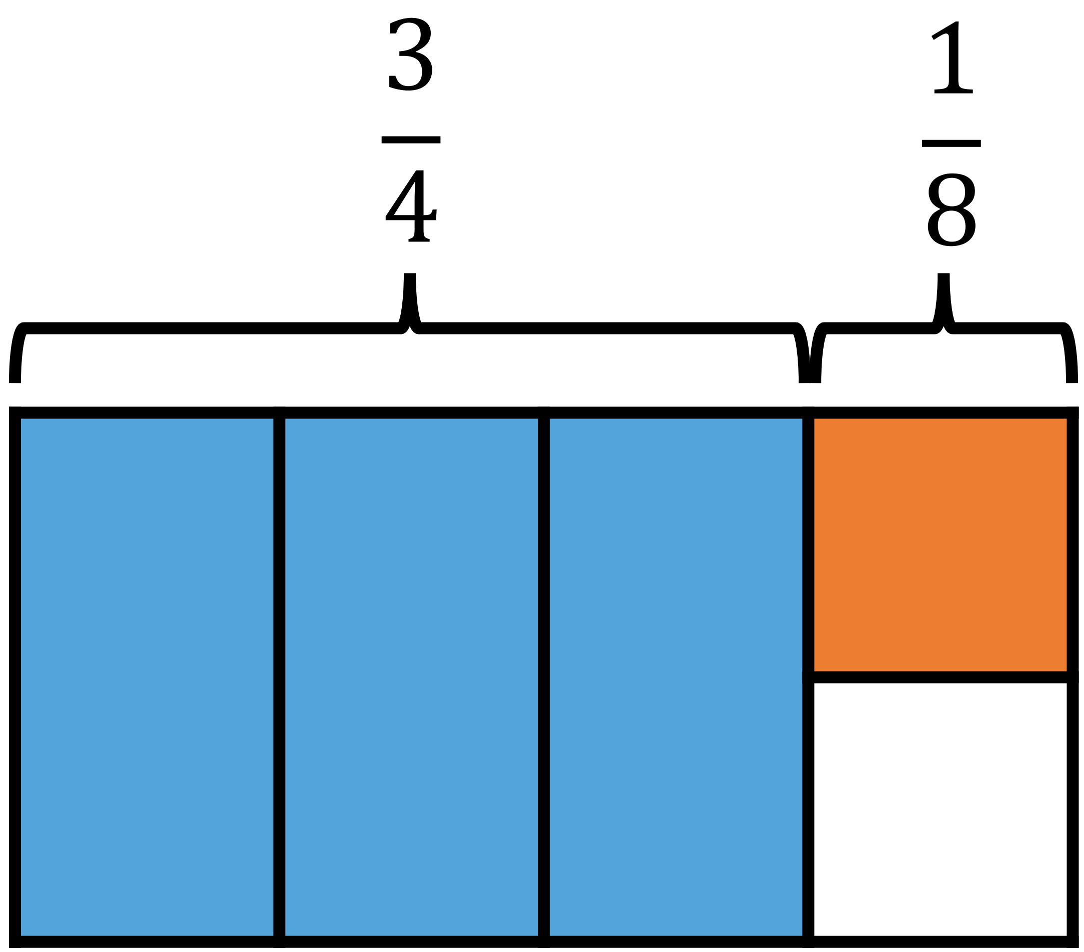
Convert **one / two** of the fractions into equivalent fractions.

Missing Fraction

Build 1

$$\frac{\boxed{3}}{\boxed{4}} + \frac{\boxed{1}}{\boxed{8}} = \frac{\boxed{}}{\boxed{}}$$

Convert **one / two** of the fractions into equivalent fractions.



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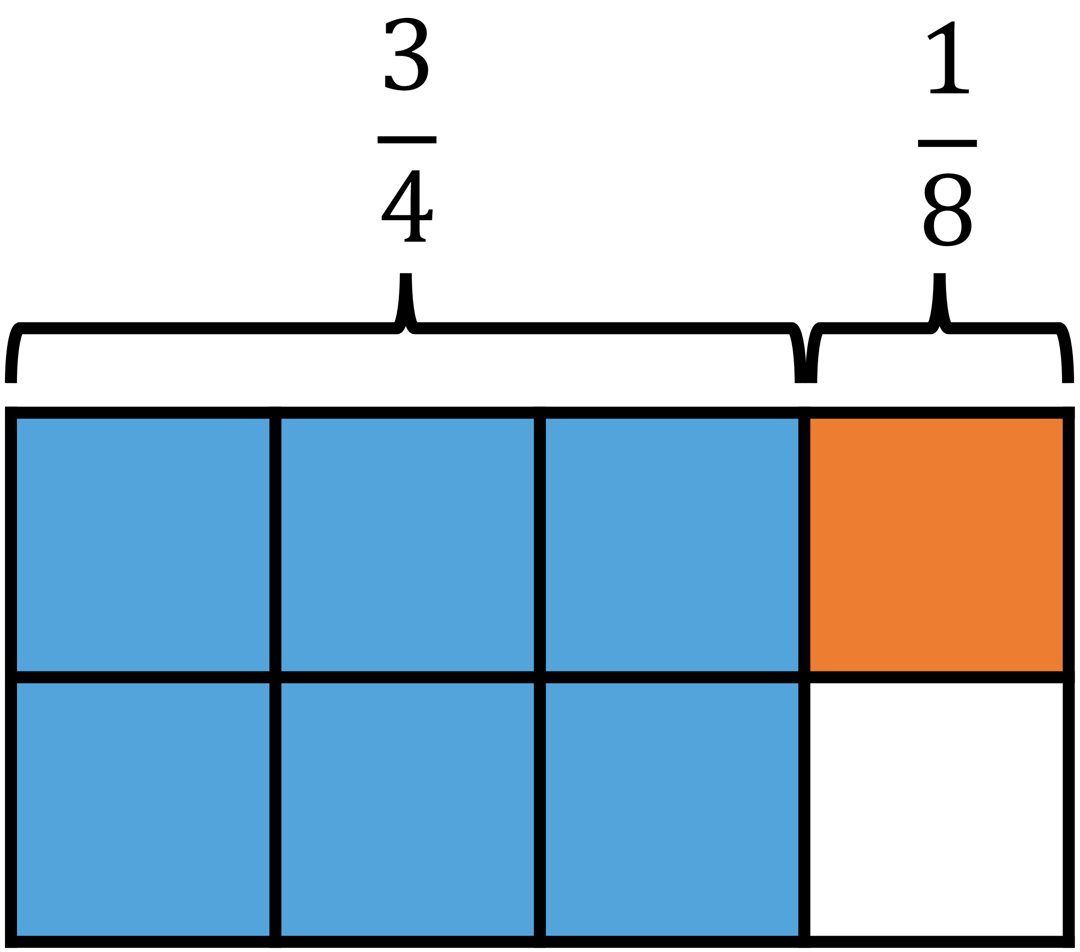


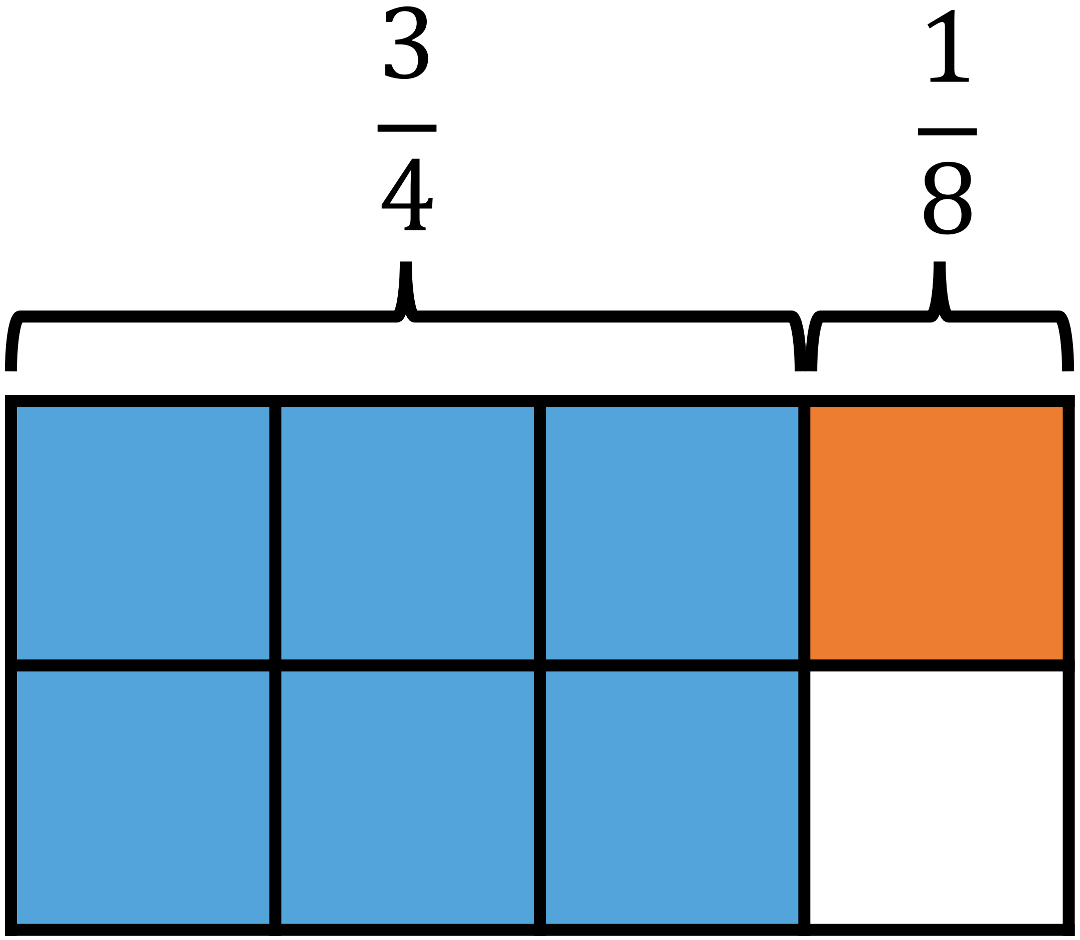
$$\frac{6}{8} + \frac{1}{8} =$$

Missing Fraction

Build 1

$$\frac{\boxed{3}}{\boxed{4}} + \frac{\boxed{1}}{\boxed{8}} = \frac{\boxed{7}}{\boxed{8}}$$

Convert **one / two** of the fractions into equivalent fractions.



$$\frac{6}{8} + \frac{1}{8} = \frac{7}{8}$$

Missing Fraction

Build 1

$$\frac{\boxed{2}}{\boxed{3}} + \frac{\boxed{1}}{\boxed{8}} + \frac{\boxed{}}{\boxed{}} = 1$$

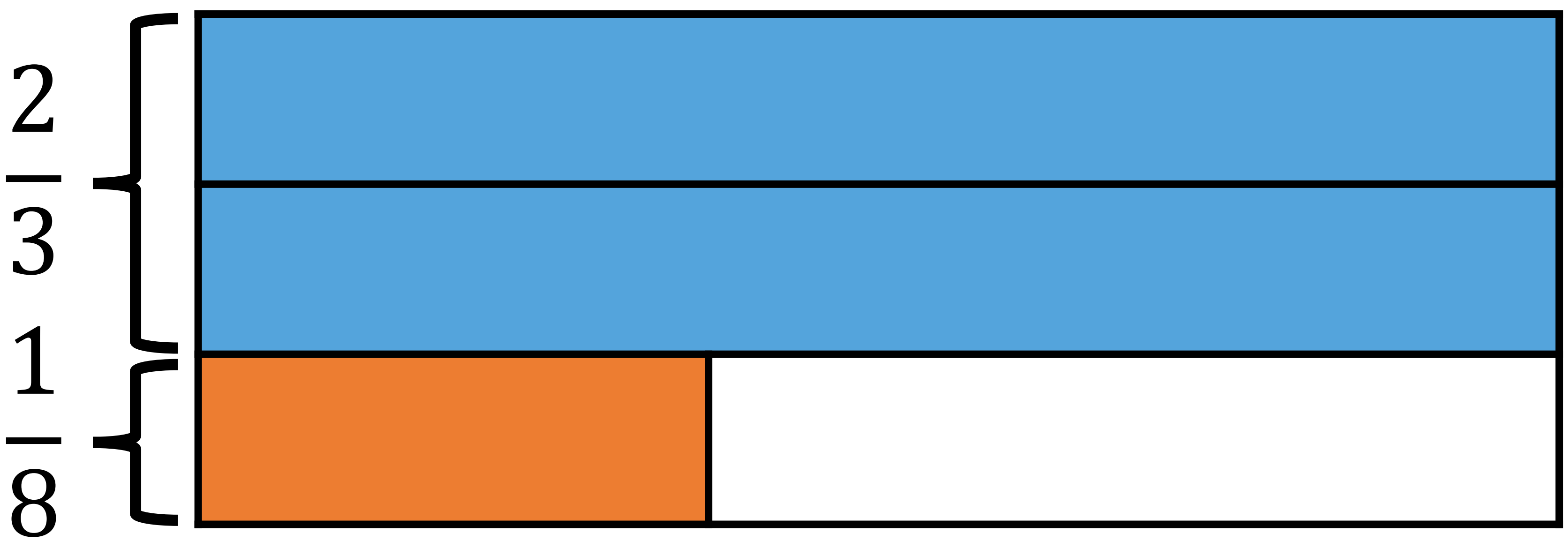
Convert **one / two** of the fractions into equivalent fractions.

Missing Fraction

Build 1

$$\frac{\boxed{2}}{\boxed{3}} + \frac{\boxed{1}}{\boxed{8}} + \frac{\boxed{}}{\boxed{}} = 1$$

Convert **one / two** of the fractions into equivalent fractions.

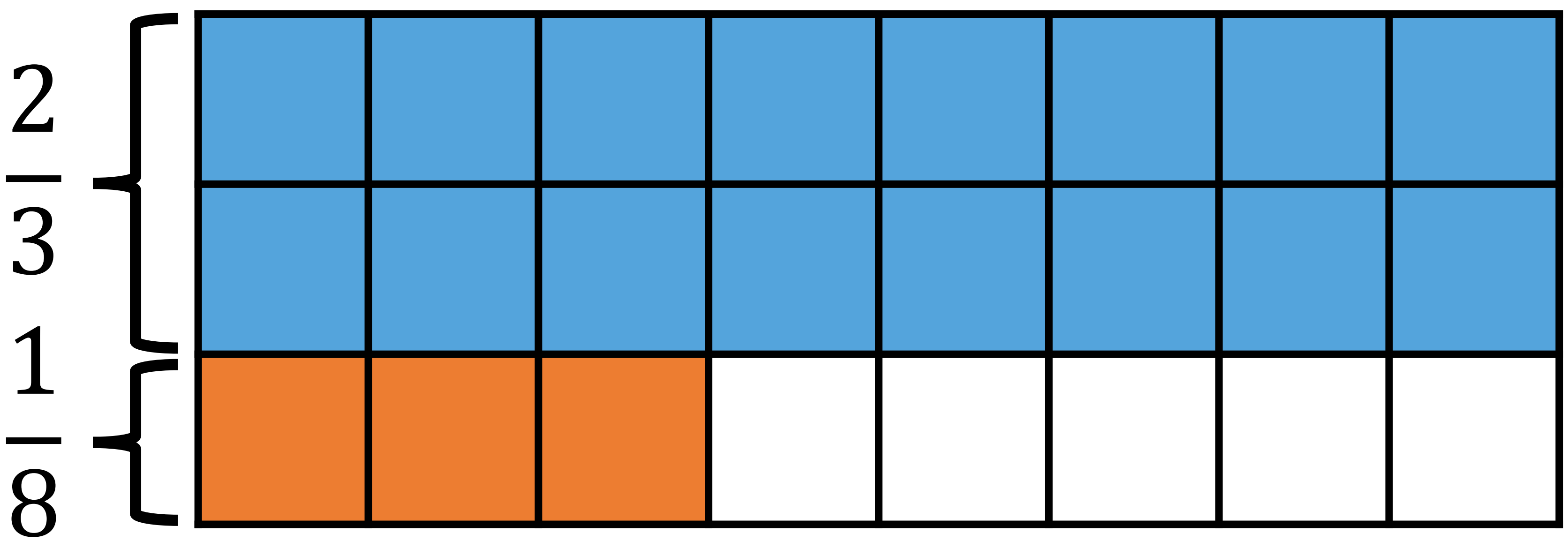


Missing Fraction

Build 1

$$\frac{\boxed{2}}{\boxed{3}} + \frac{\boxed{1}}{\boxed{8}} + \frac{\boxed{}}{\boxed{}} = 1$$

Convert **one / two** of the fractions into equivalent fractions.



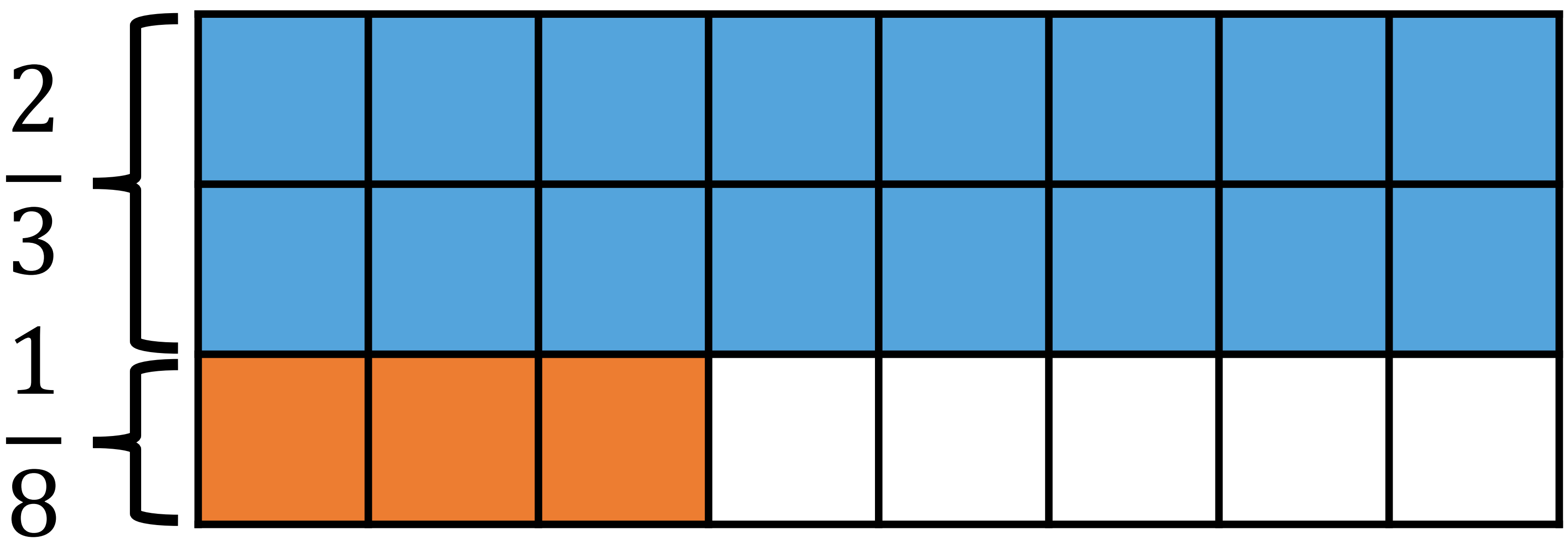
$$\frac{16}{24} + \frac{3}{24} + \boxed{} = 1$$

Missing Fraction

Build 1

$$\frac{\boxed{2}}{\boxed{3}} + \frac{\boxed{1}}{\boxed{8}} + \frac{\boxed{5}}{\boxed{24}} = 1$$

Convert **one / two** of the fractions into equivalent fractions.



$$\frac{16}{24} + \frac{3}{24} + \frac{\mathbf{5}}{\mathbf{24}} = 1$$

There are **24** children at running club.

$\frac{3}{4}$ of the children at running club are girls.

How many girls go to running club?

There are **24** children at running club.

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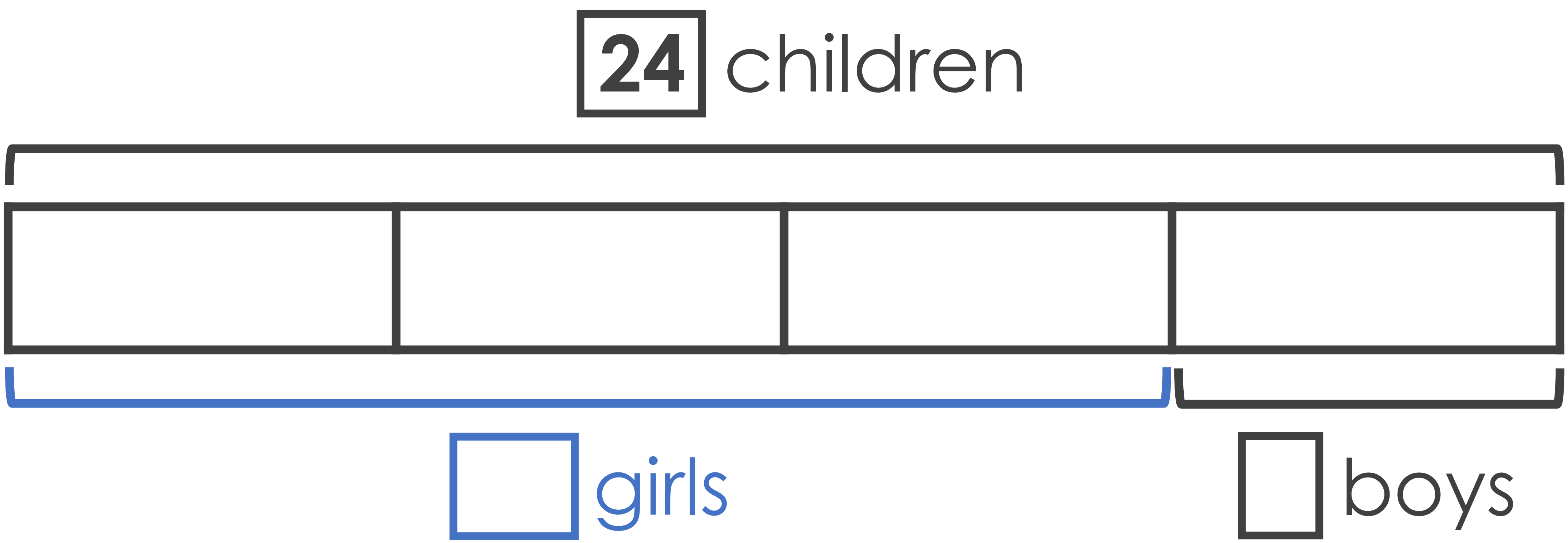
How many girls go to running club?



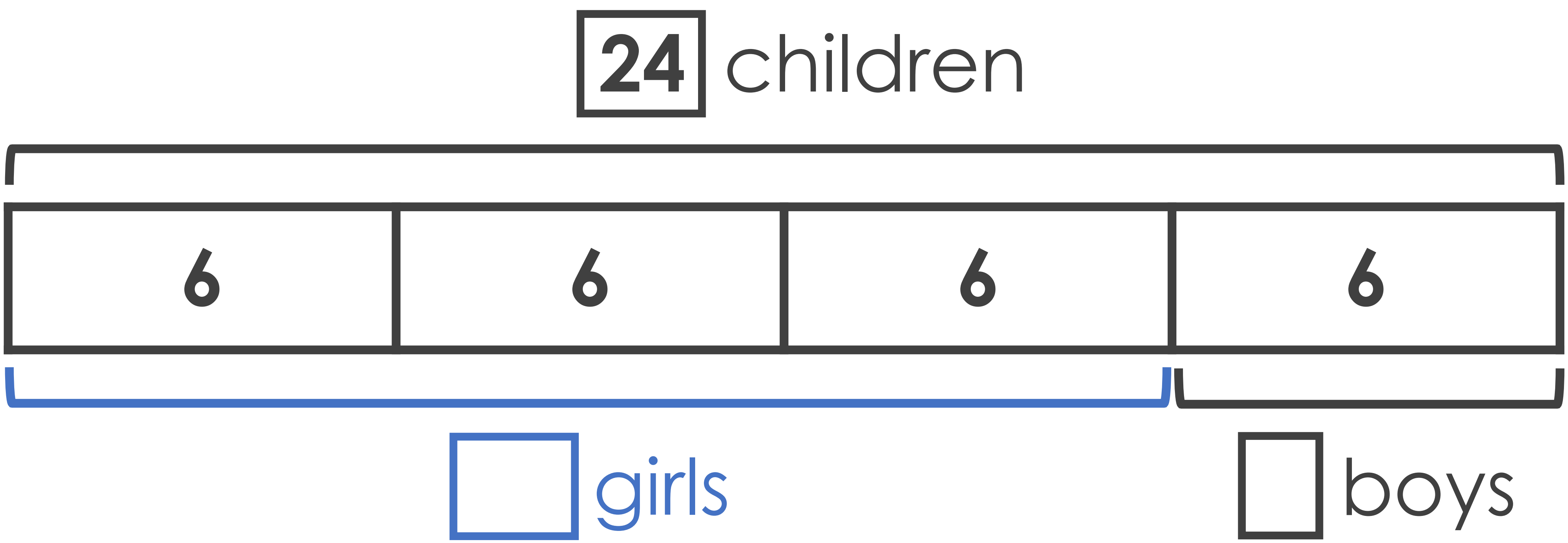
Fractions of a Quantity

Build 1

There are **24** children at running club.

$\frac{3}{4}$ of the children at running club are girls.

How many girls go to running club?



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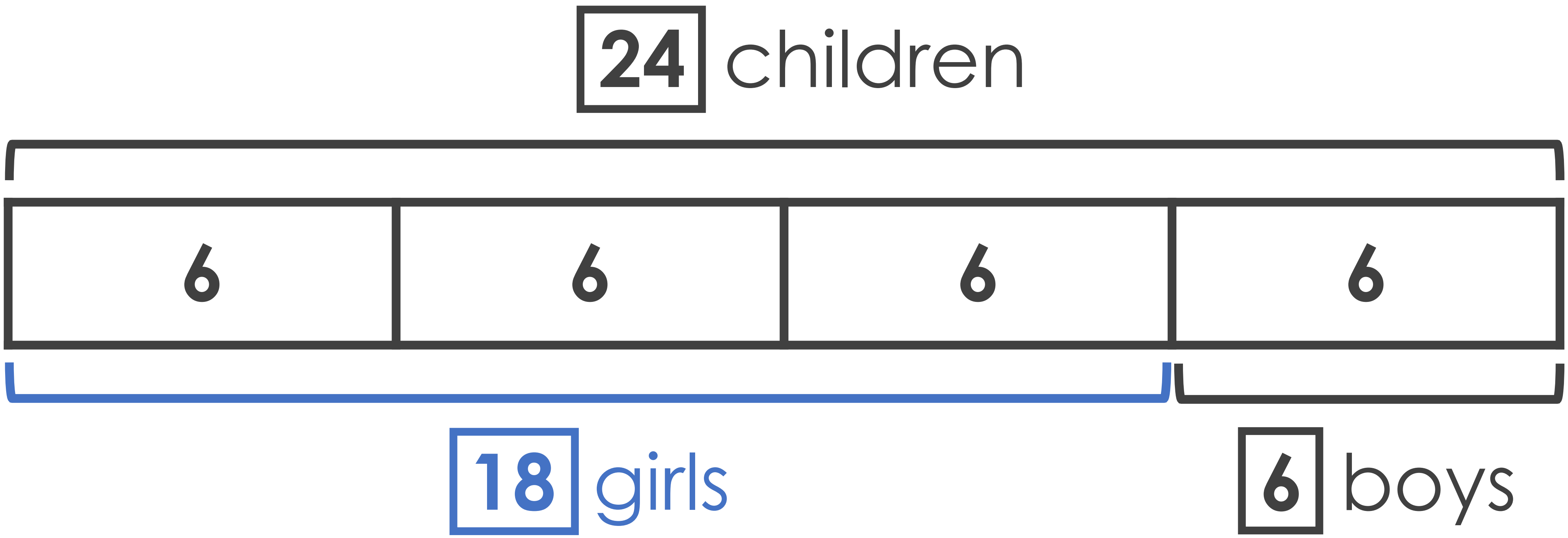
How many girls go to running club?



Ben had **£24**.

Then, he spent $\frac{2}{3}$ of his money on a t-shirt.

How much money did Ben have left?

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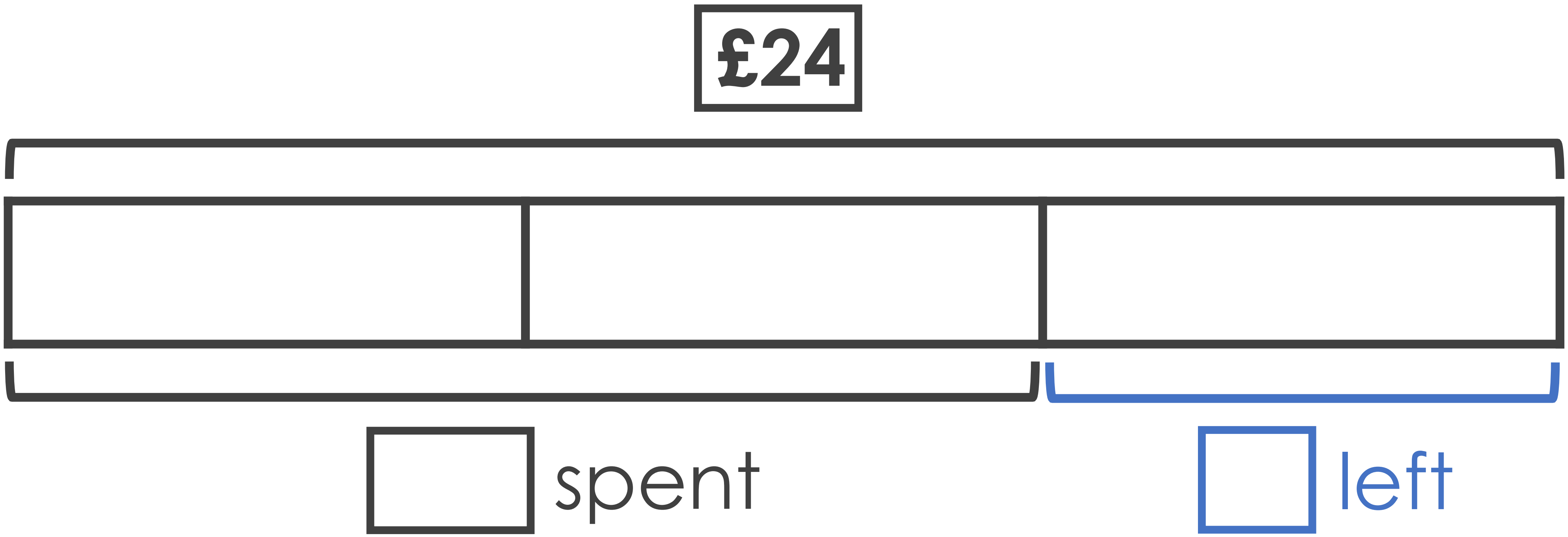
How much money did Ben have left?



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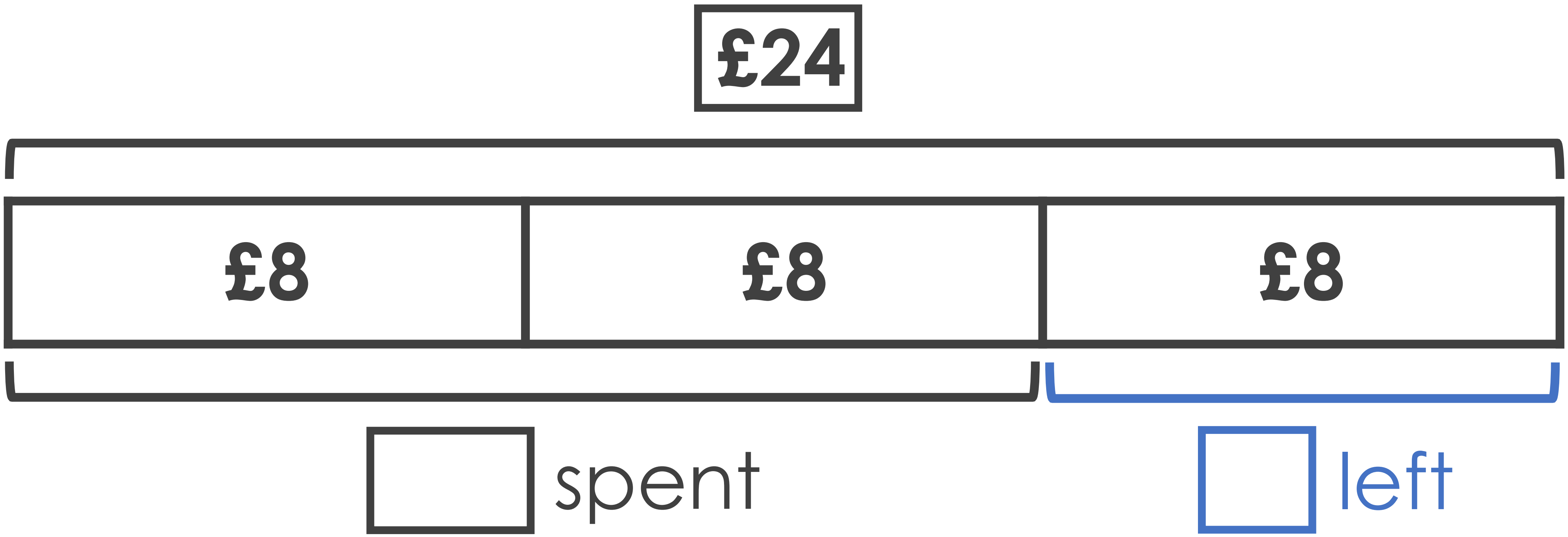

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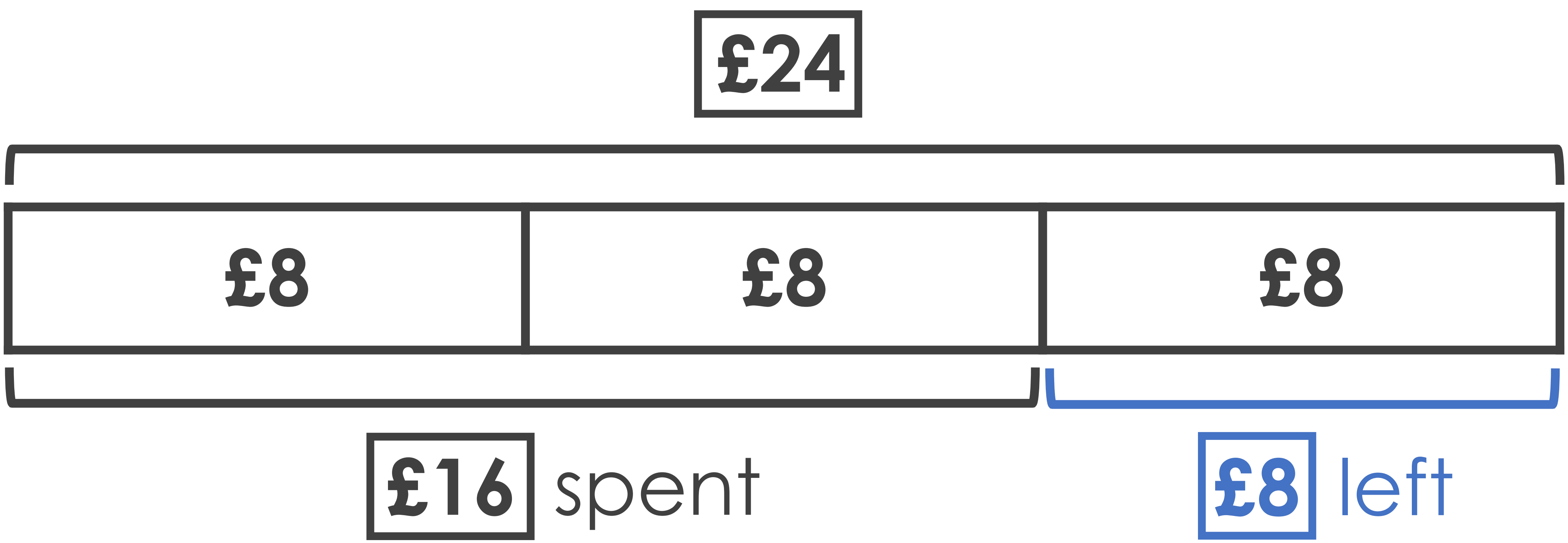


There are **24** right-handed children in the class.

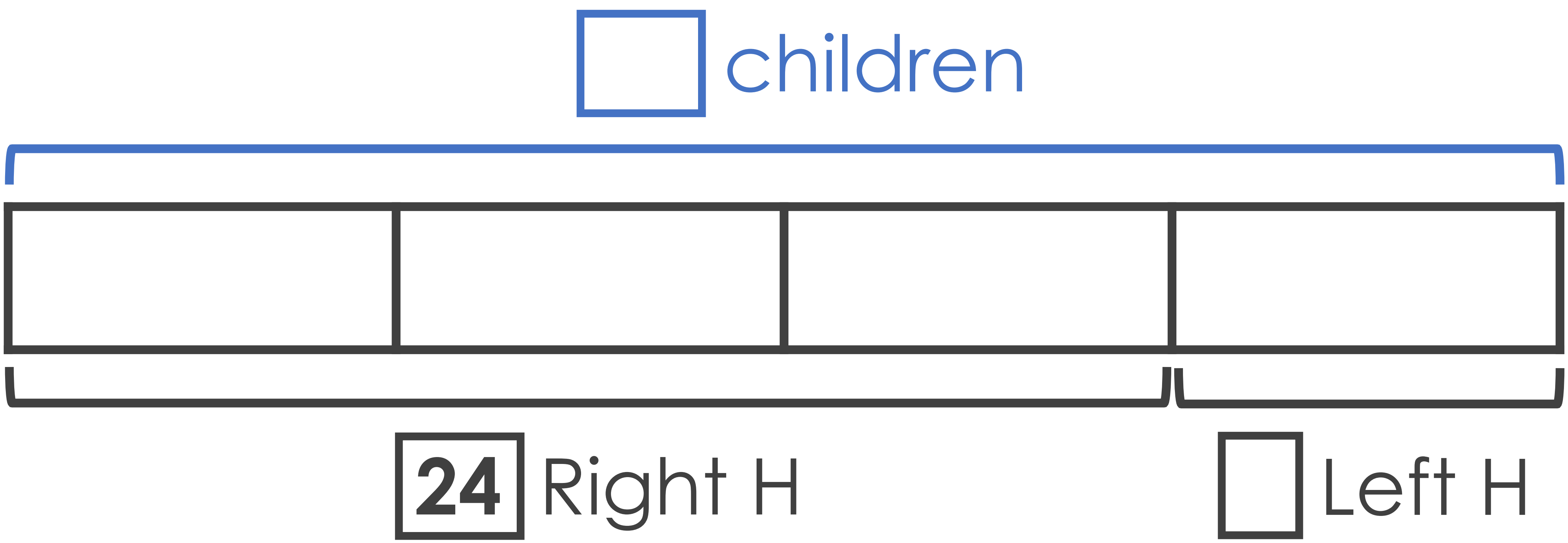
$\mathbf{\frac{3}{4}}$ of the children in the class are right-handed.

How many children are there in the class?

There are **24** right-handed children in the class.

$\frac{3}{4}$ of the children in the class are right-handed.

How many children are there in the class?



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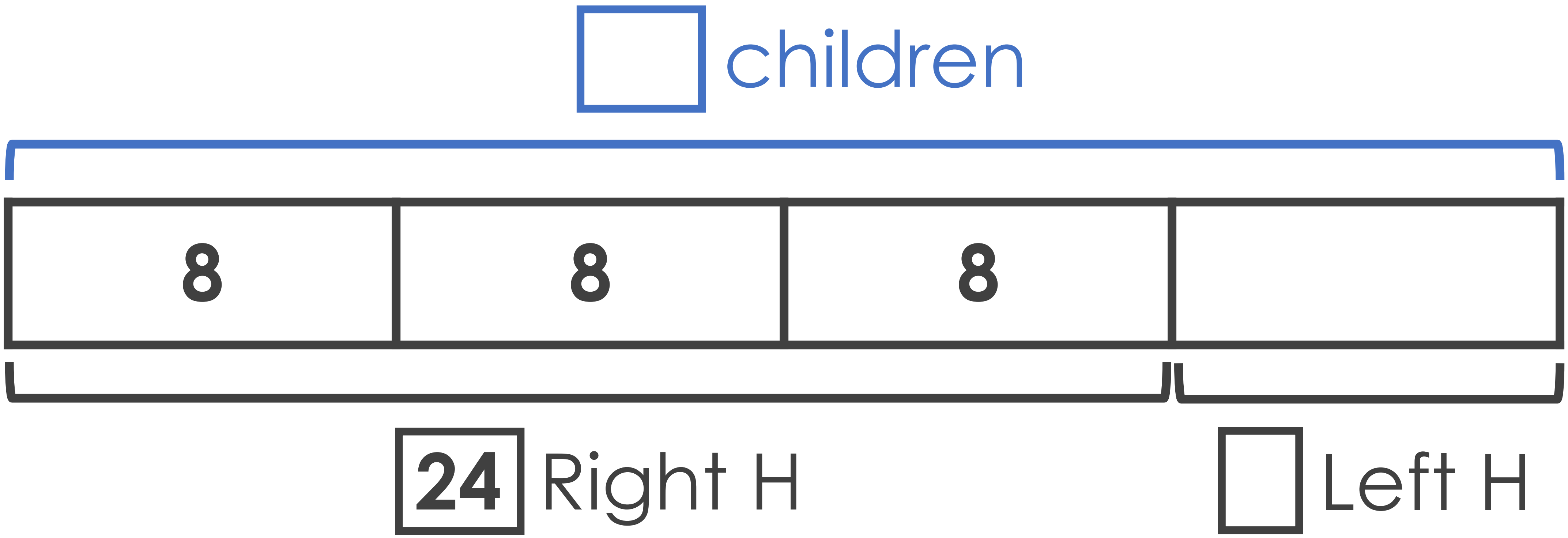


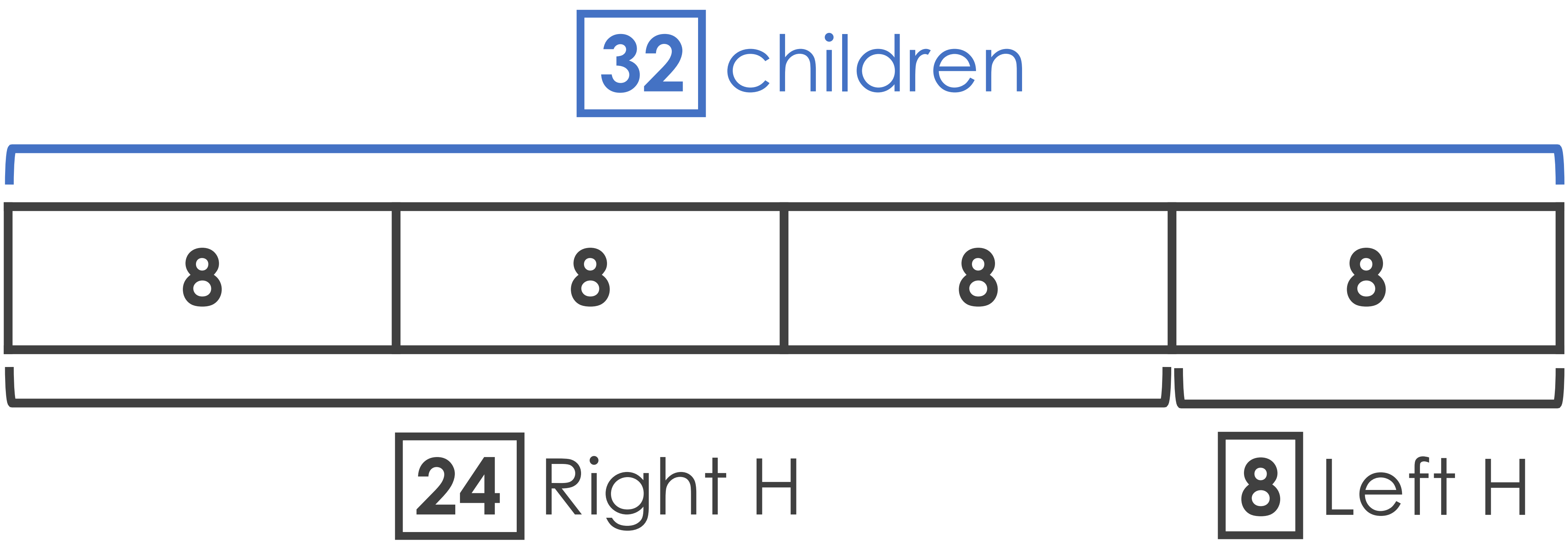
Fractions of a Quantity

Build 1

There are **24** right-handed children in the class.

$\frac{3}{4}$ of the children in the class are right-handed.

How many children are there in the class?



James ate $\frac{2}{3}$ of the grapes in the pack.

There were 36 grapes in the pack

How many grapes did he eat?

Fractions of a Quantity

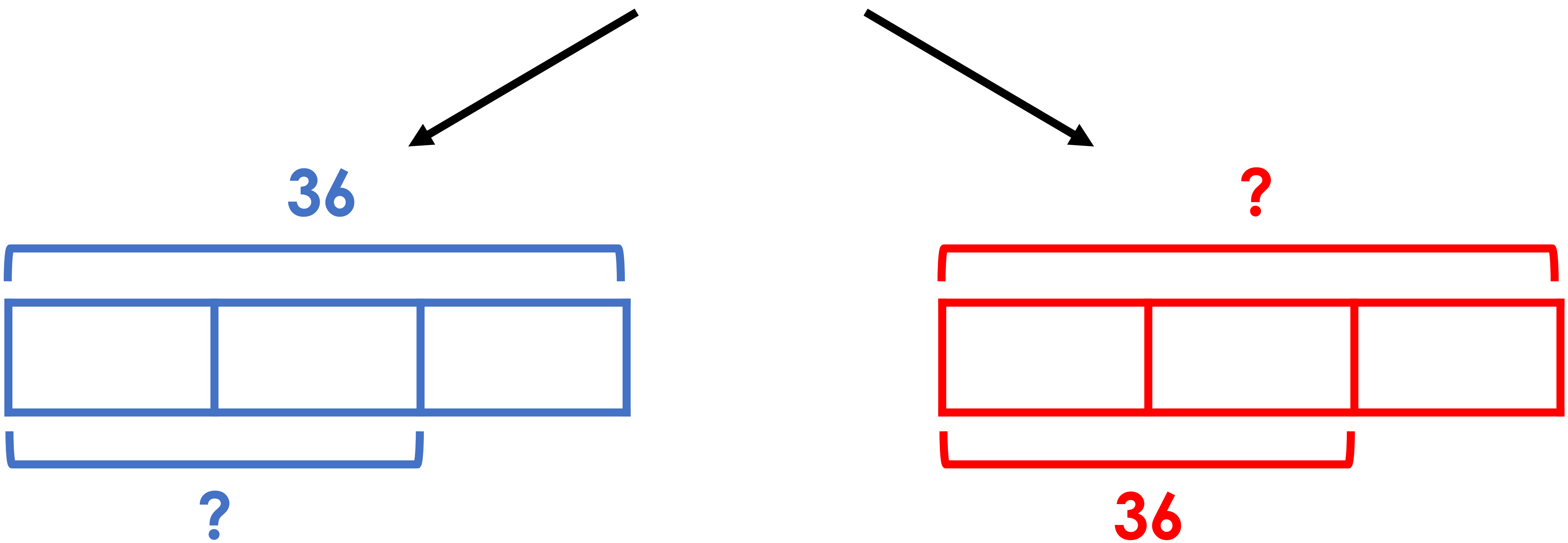
Build 2

James ate $\frac{2}{3}$ of the grapes in the pack.

There were 36 grapes in the pack

How many grapes did he eat?

Which bar model represents the question?



Zara's book is **60** pages long.

Zara has read $\mathbf{\frac{3}{4}}$ of her book.

How many pages does Zara have left to read?

Fractions of a Quantity

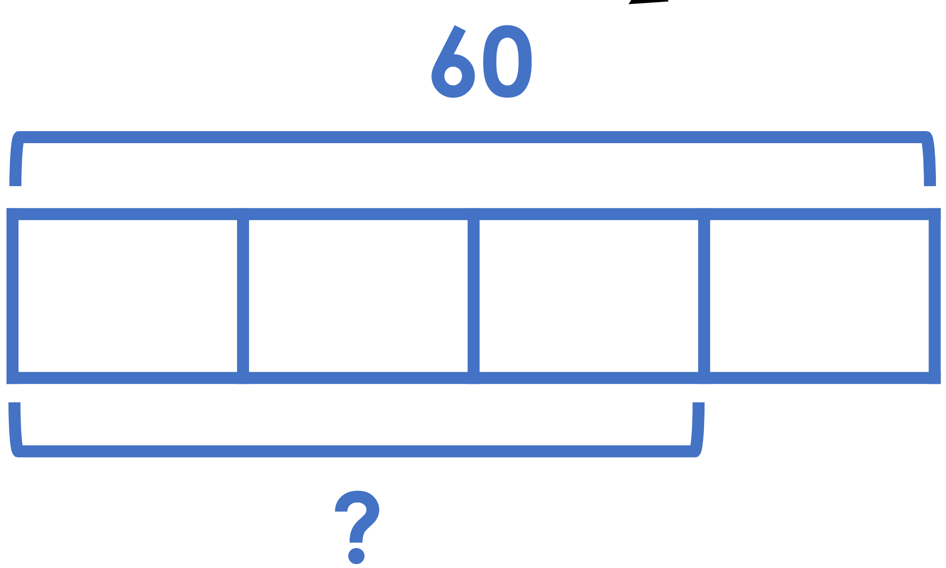
Build 2

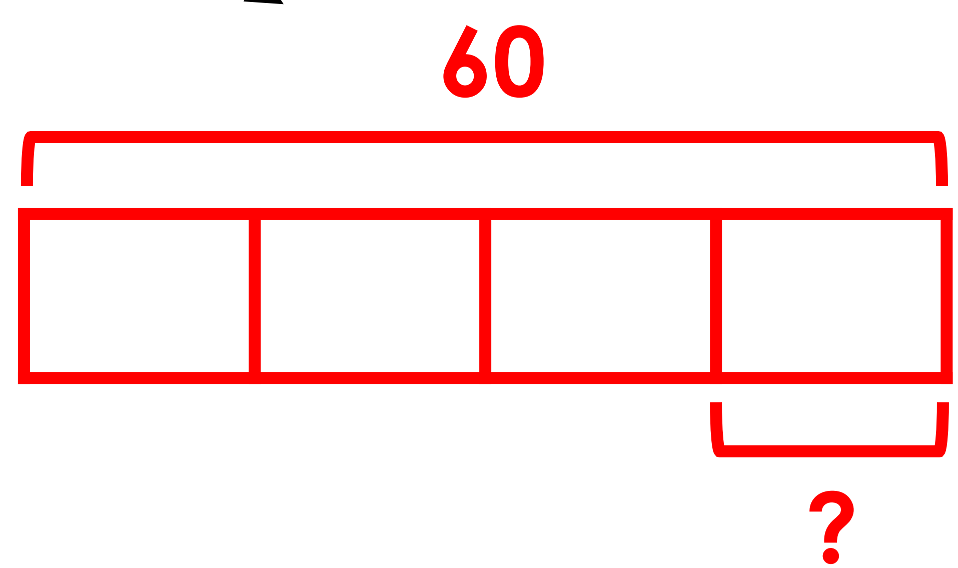
Zara’s book is **60** pages long.

Zara has read $\frac{3}{4}$ of her book.

How many pages does Zara have left to read?

Which bar model represents the question?





For every 2 girls at the party, there is 1 boy.

There are 24 girls at the party.

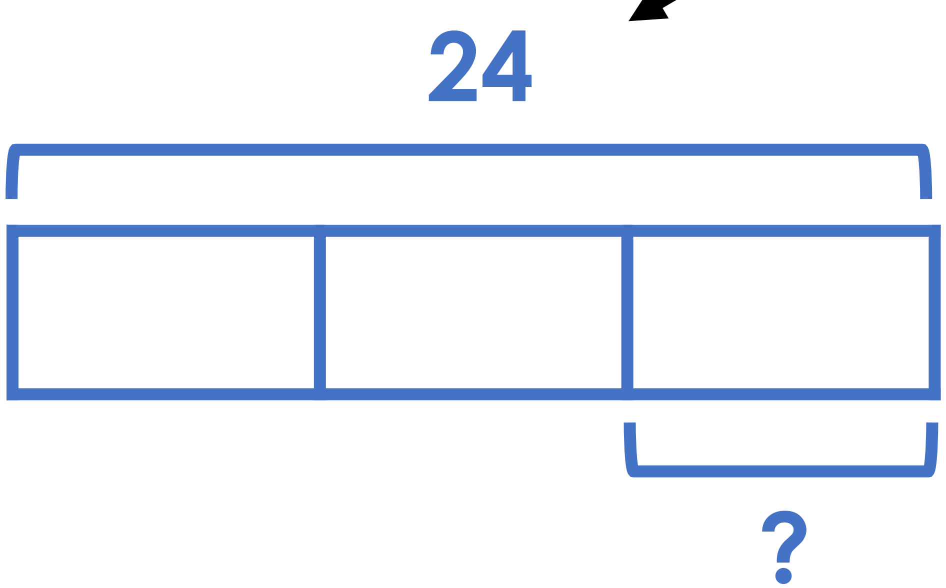
How many boys are there at the party?

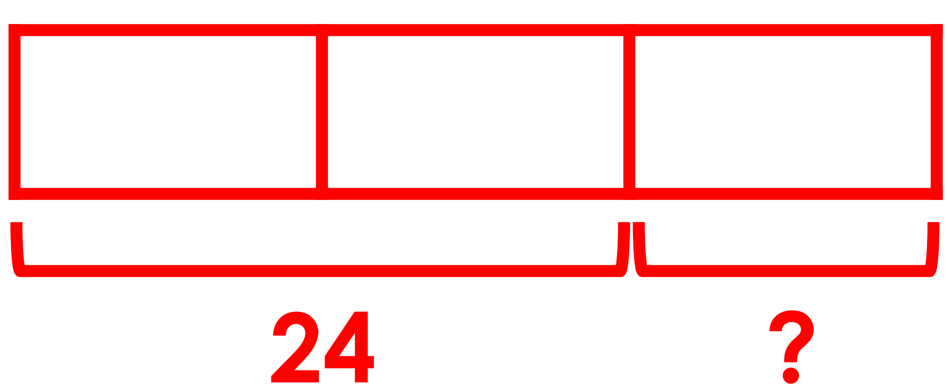
For every 2 girls at the party, there is 1 boy.

There are 24 girls at the party.

How many boys are there at the party?

Which bar model represents the question?





Spot the Difference

Oliver had £45.

He spent $\frac{1}{3}$ of his money on a watch.

He spent £12 on a cap.

How much money does he have left?

Freddy had £45.

He spent £12 on a cap.

He spent $\frac{1}{3}$ of the remaining money on a watch.

How much money does he have left?

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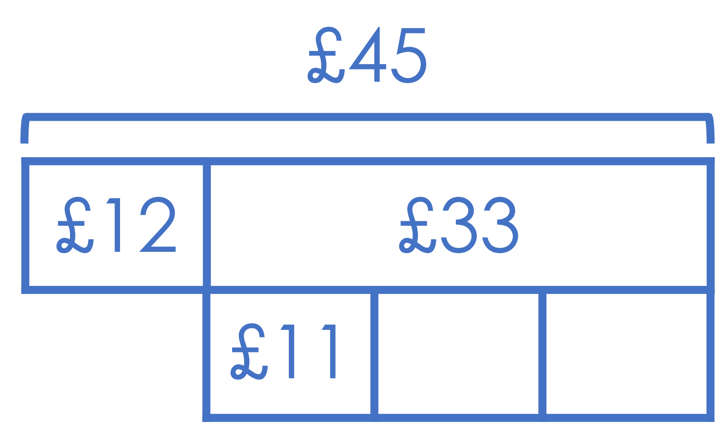

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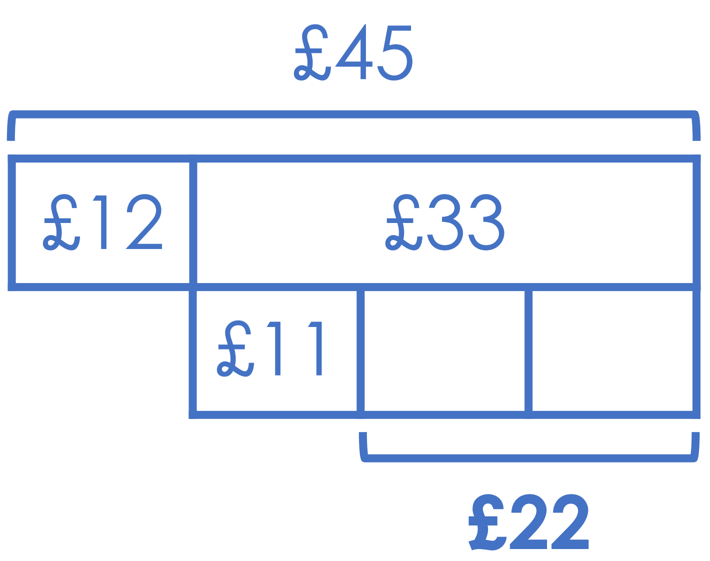

There were some stickers in a pack.

Zara used $\frac{2}{3}$ of the stickers.

There were 10 stickers left.

How many stickers were in the pack?

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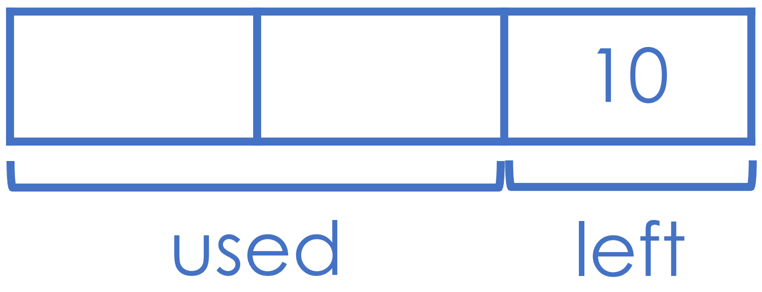
How many stickers were in the pack?



Multi-Step Fractions

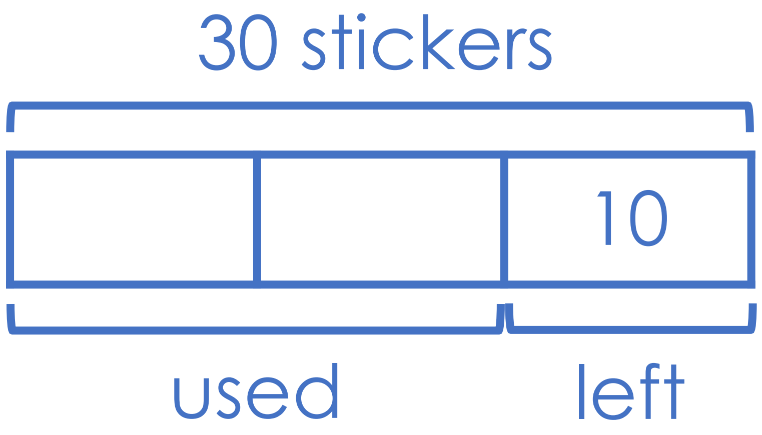
Build 2

There were some stickers in a pack.

Zara used $\frac{2}{3}$ of the stickers.

There were 10 stickers left.

How many stickers were in the pack?



There were some stickers in a pack.

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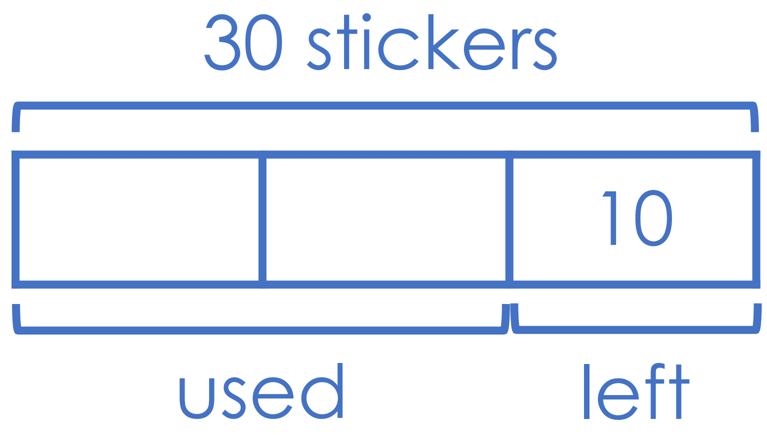
How many stickers were in the pack?



Kelly had some money.

Kelly spent $\frac{2}{3}$ of her money on a coat.

She spent £5 on a scarf.

Kelly had £10 left.

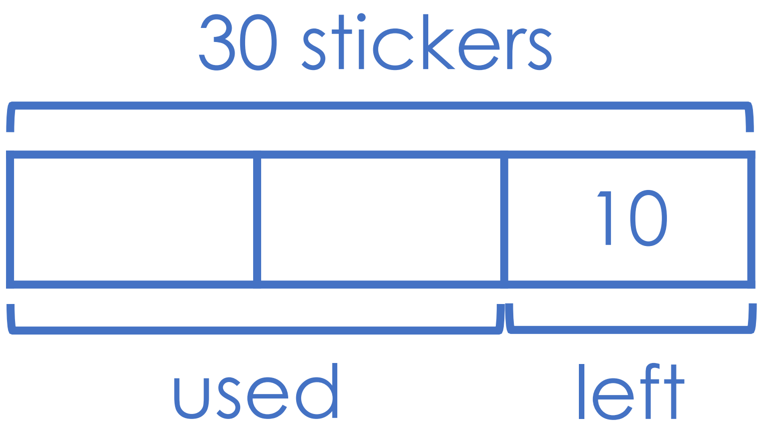
How much money did Kelly have?

There were some stickers in a pack.

Zara used $\frac{2}{3}$ of the stickers.

There were 10 stickers left.

How many stickers were in the pack?



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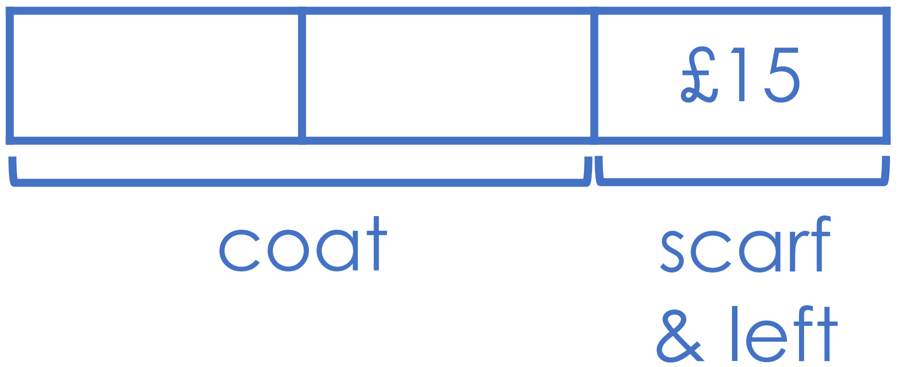
Kelly spent $\frac{2}{3}$ of her money on a coat.

She spent £5 on a scarf.

Kelly had £10 left.

How much money did Kelly have?

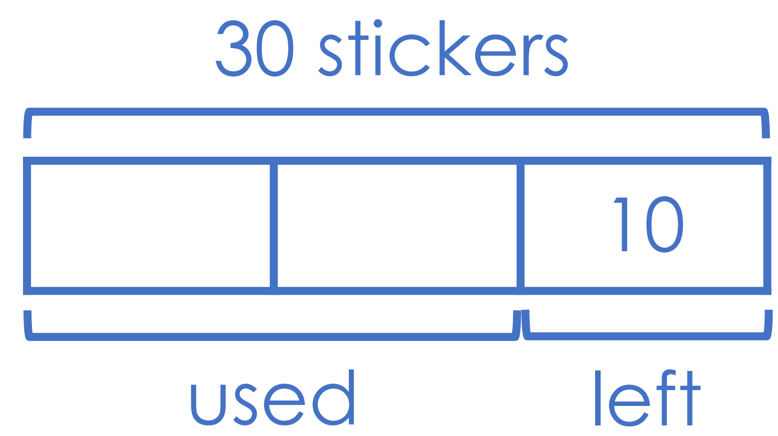


There were some stickers in a pack.

Zara used $\frac{2}{3}$ of the stickers.

There were 10 stickers left.

How many stickers were in the pack?



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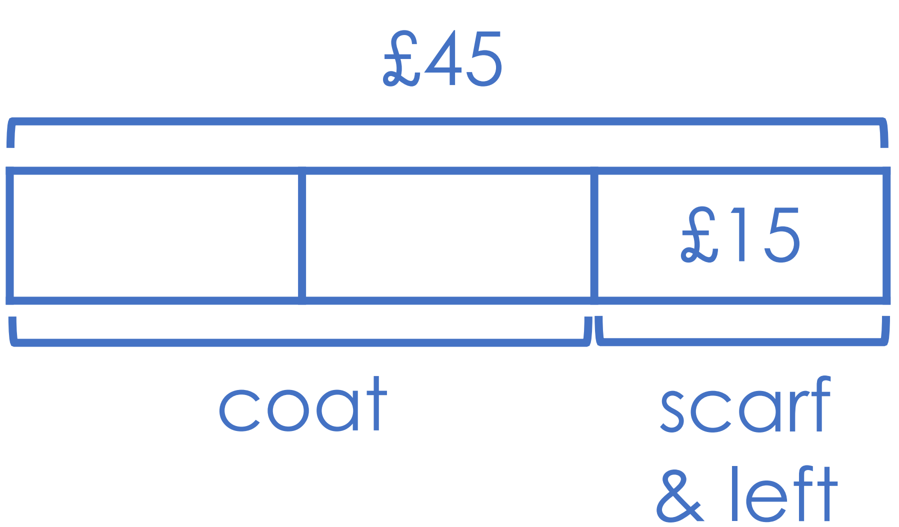
Kelly spent $\frac{2}{3}$ of her money on a coat.

She spent £5 on a scarf.

Kelly had £10 left.

How much money did Kelly have?



Tom had $\boxed{}$

He was given **£30** for his birthday.

Then he spent **half** of his money on a bike.

Tom has **£60** left.

Tom had $\boxed{}$

He was given **£30** for his birthday.

Then he spent **half** of his money on a bike.

Tom has **£60** left.

Money Tom had

Tom had $\square$

He was given **£30** for his birthday.

Then he spent **half** of his money on a bike.

Tom has **£60** left.

Money Tom had	£30

Tom had $\boxed{}$

He was given **£30** for his birthday.

Then he spent **half** of his money on a bike.

Tom has **£60** left.

Money Tom had		£30
Cost of bike	£60 left	

Tom had $\boxed{}$

He was given **£30** for his birthday.

Then he spent **half** of his money on a bike.

Tom has **£60** left.

Money Tom had		£30
£60 bike	£60 left	

Tom had $\boxed{\textbf{£90}}$

He was given **£30** for his birthday.

Then he spent **half** of his money on a bike.

Tom has **£60** left.

Tom had £90		**£30**
£60 bike	**£60 left**	

My number was $\boxed{}$

I multiply my number by **4**

Then I subtract **15**

Now my number is **21**

My number was $\boxed{}$

I multiply my number by **4**

Then I subtract **15**

Now my number is **21**

Inverse

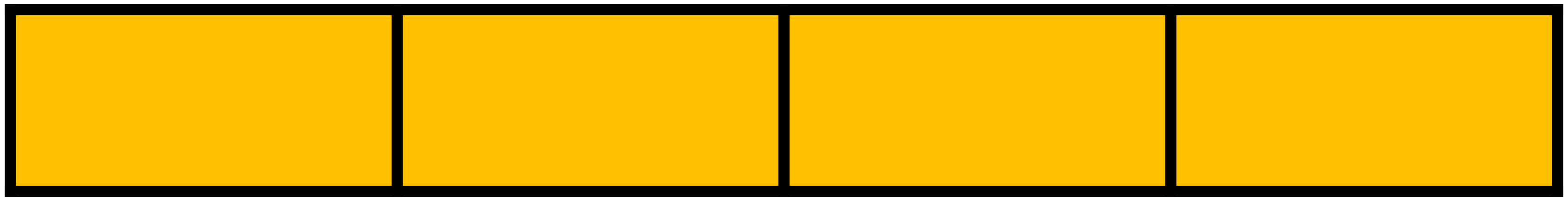
Build 1

My number was

I multiply my number by **4**

Then I subtract **15**

Now my number is **21**



My number was $\boxed{}$

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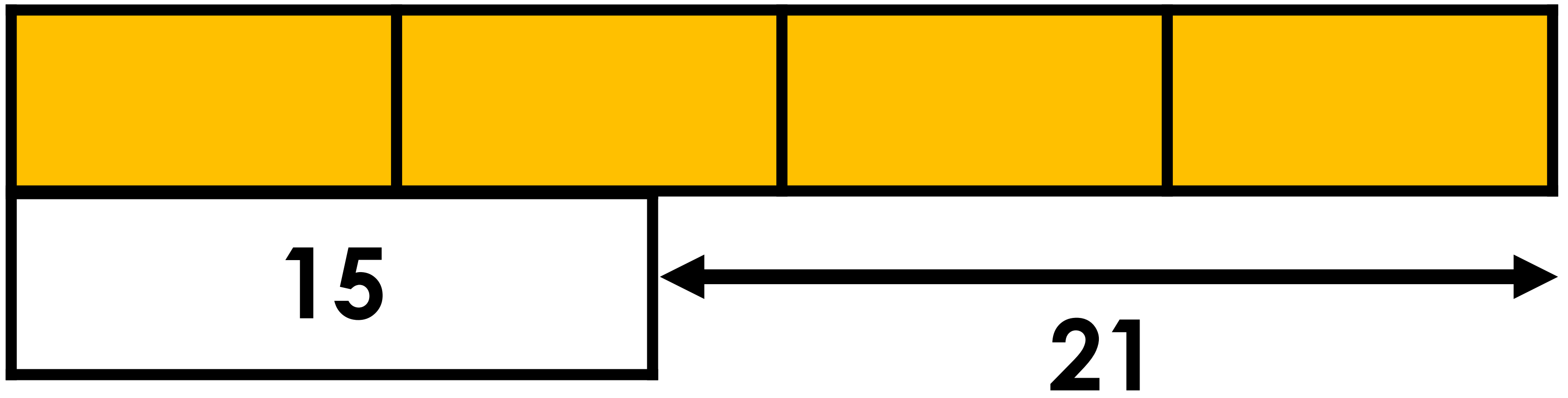
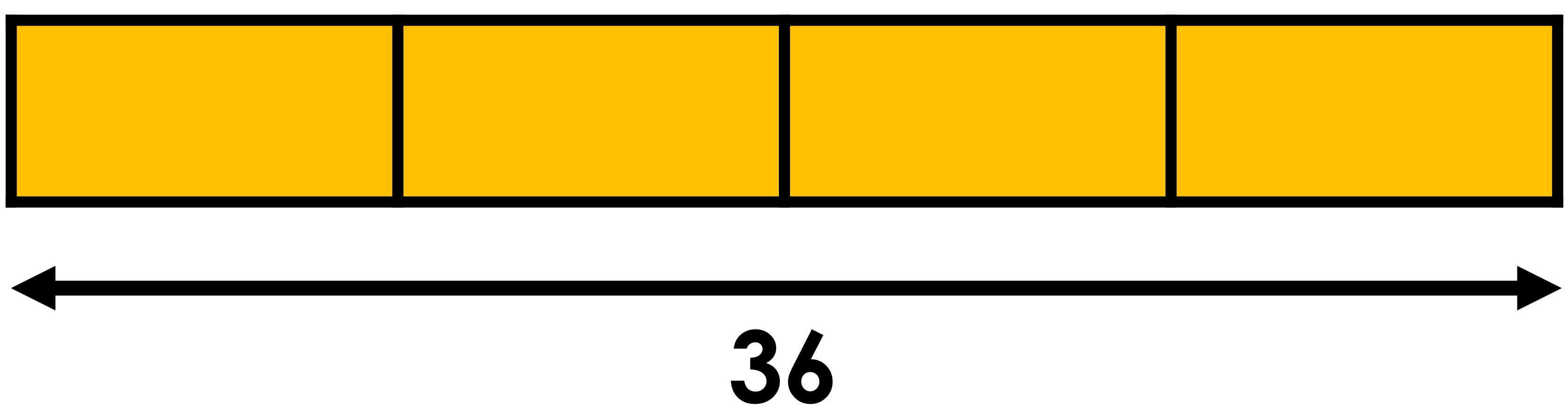


My number was $\boxed{}$

I multiply my number by **4**

Then I subtract **15**

Now my number is **21**

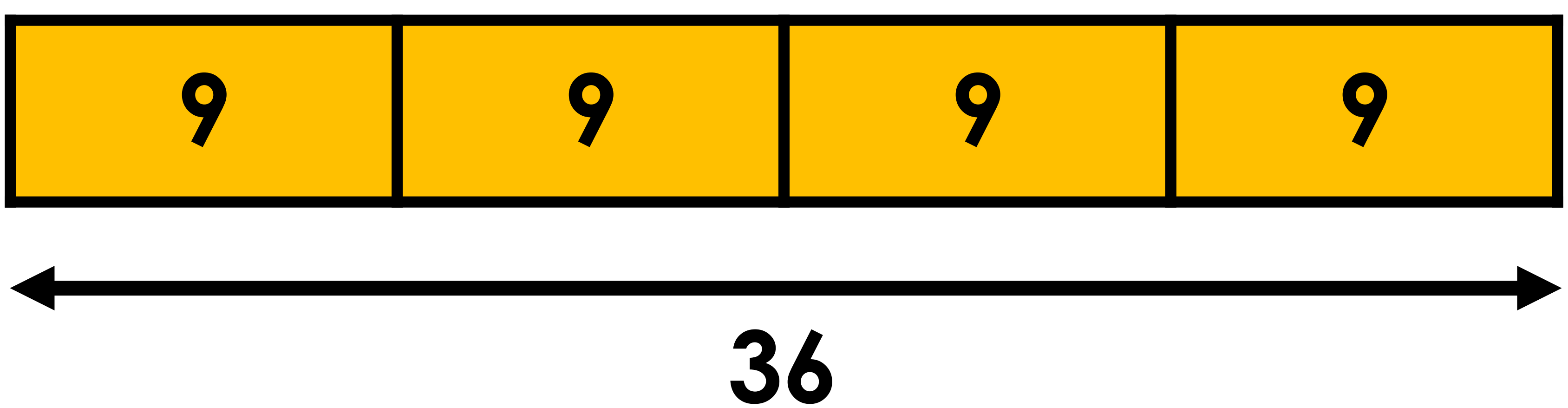


My number was **9**

I multiply my number by **4**

Then I subtract **15**

Now my number is **21**



Jen thinks of a number.

She multiplies her number by **3**

Then she adds **2**

Now Jen's number is $\boxed{}$

She adds **2**

Then she multiplies her number by **3**

Now Jen's number is $\boxed{}$

*'The **blue/red** number will be larger because…'*

Jen thinks of a number.

She multiplies her number by **3**

Then she adds **2**

Now Jen's number is $\square$

She adds **2**

Then she multiplies her number by **3**

Now Jen's number is $\square$

Jen thinks of a number.

She multiplies her number by **3**

Then she adds **2**

Now Jen's number is □

She adds **2**

Then she multiplies her number by **3**

Now Jen's number is □

Inverse **Build 2**

Jen thinks of a number.

She multiplies her number by **3**

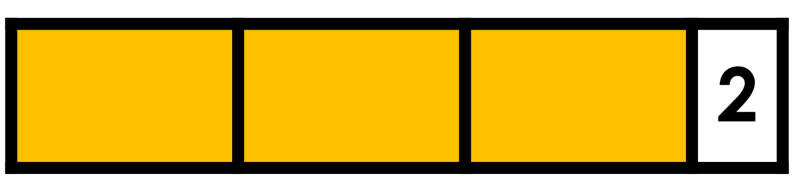
Then she adds **2**

Now Jen's number is $\square$

She adds **2**

Then she multiplies her number by **3**

Now Jen's number is $\square$



Inverse

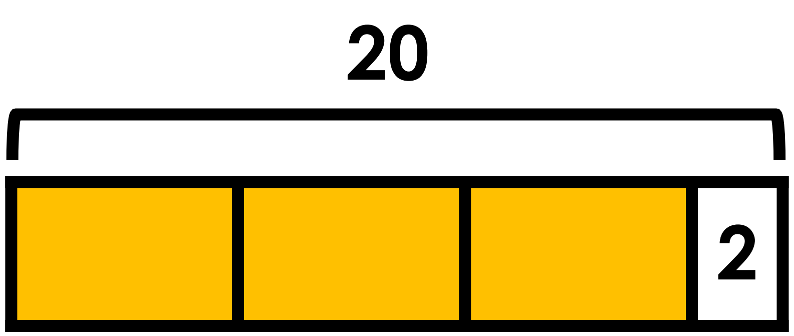
Build 2

Jen thinks of a number.

She multiplies her number by **3**

Then she adds **2**

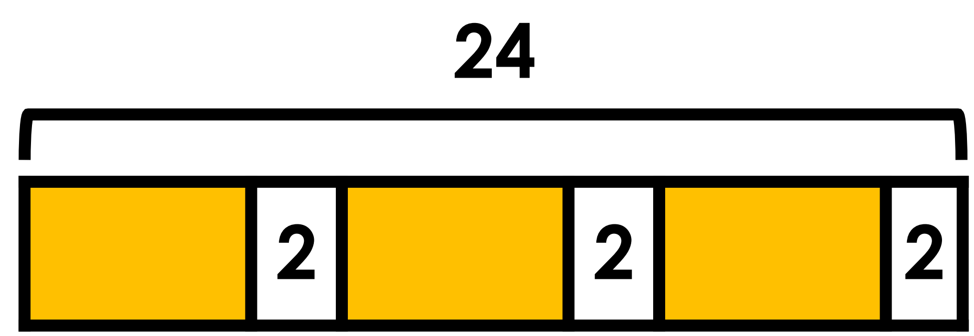
Now Jen's number is $\boxed{\mathbf{20}}$



She adds **2**

Then she multiplies her number by **3**

Now Jen's number is $\boxed{\mathbf{24}}$



Inverse

Build 2

Jen thinks of a number.

She multiplies her number by **3**

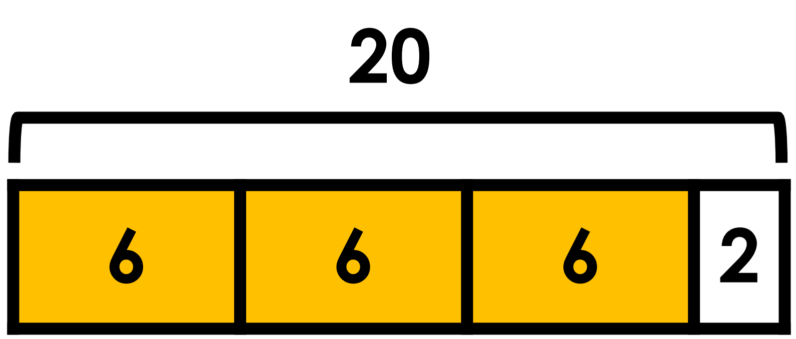
Then she adds **2**

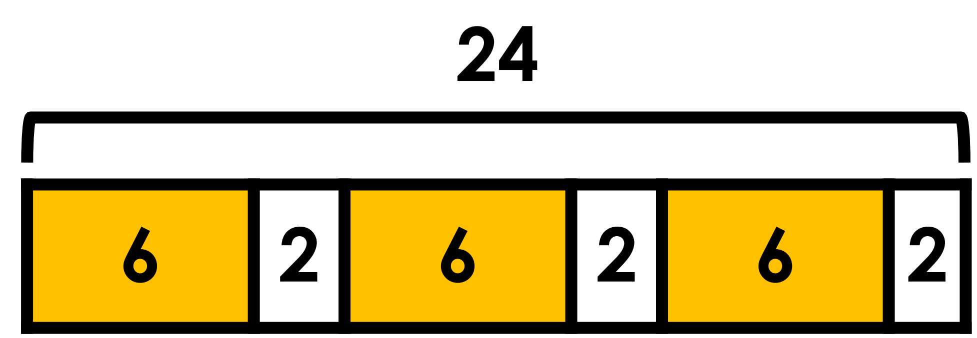
Now Jen's number is **20**

She adds **2**

Then she multiplies her number by **3**

Now Jen's number is **24**





Compare the Info

Build 1

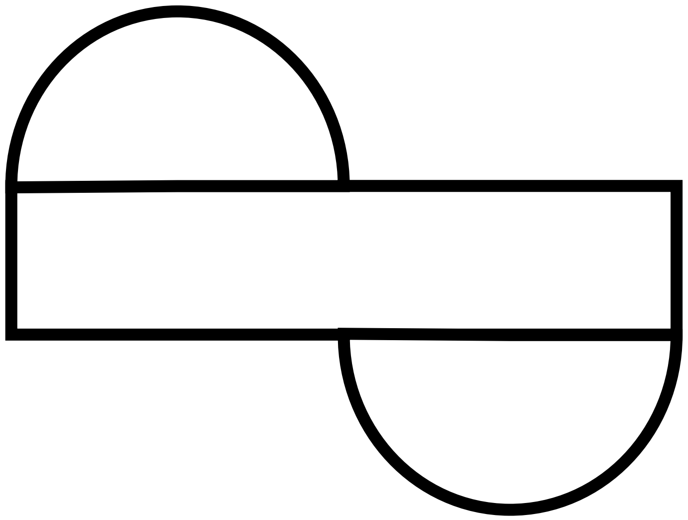
The patterns are made with identical rectangles and semi-circles.

Spot the difference.

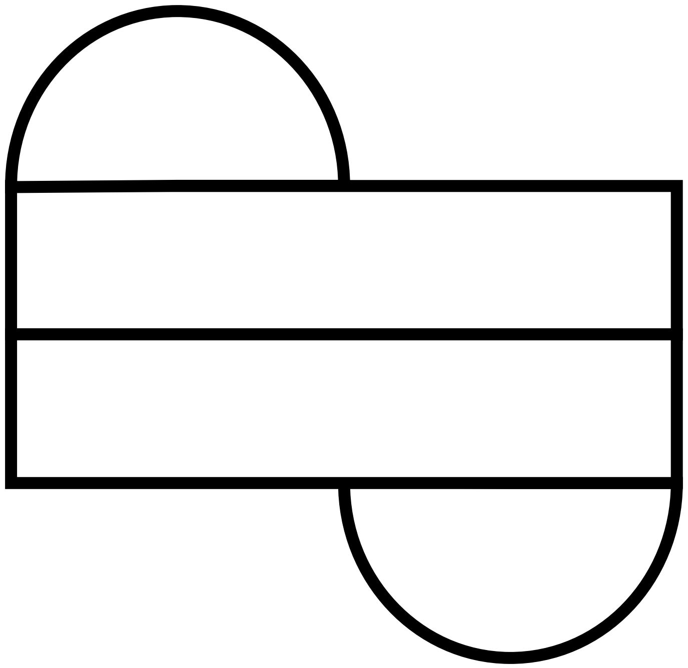
Compare the Info

Build 1

The patterns are made with identical rectangles and semi-circles.



Pattern A = 50

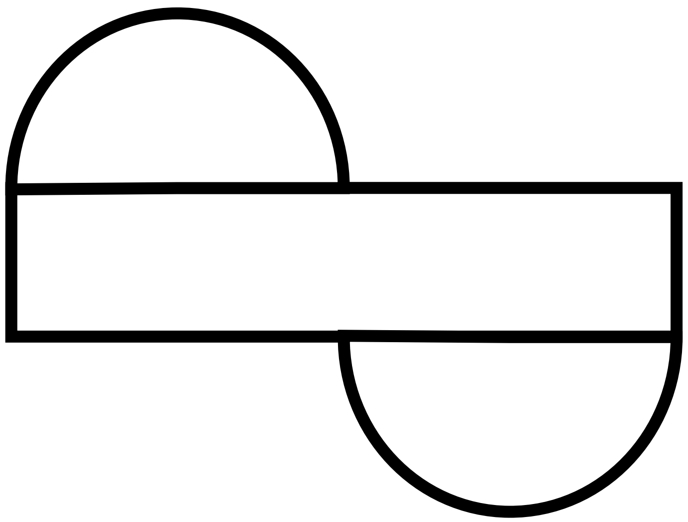


Pattern B = 70

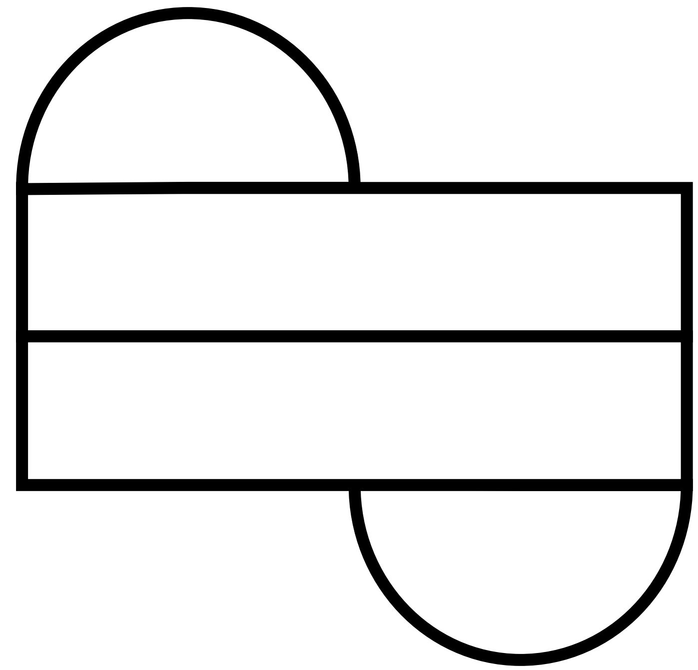
Compare the Info

Build 1

The patterns are made with identical rectangles and semi-circles.



Pattern A = 50



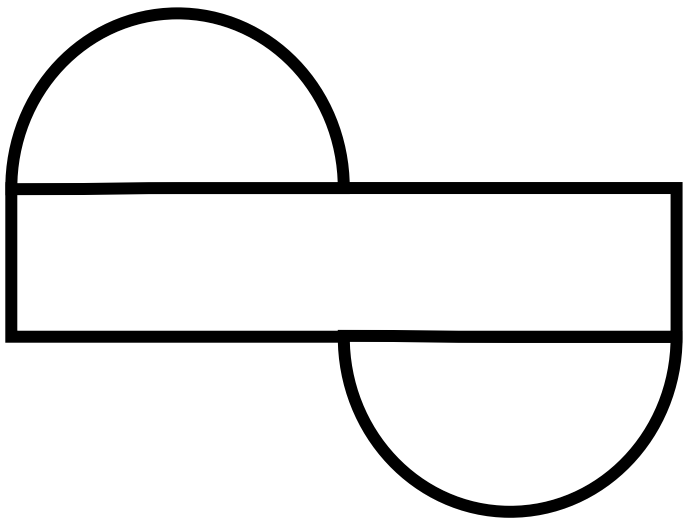
Pattern B = 70

 =

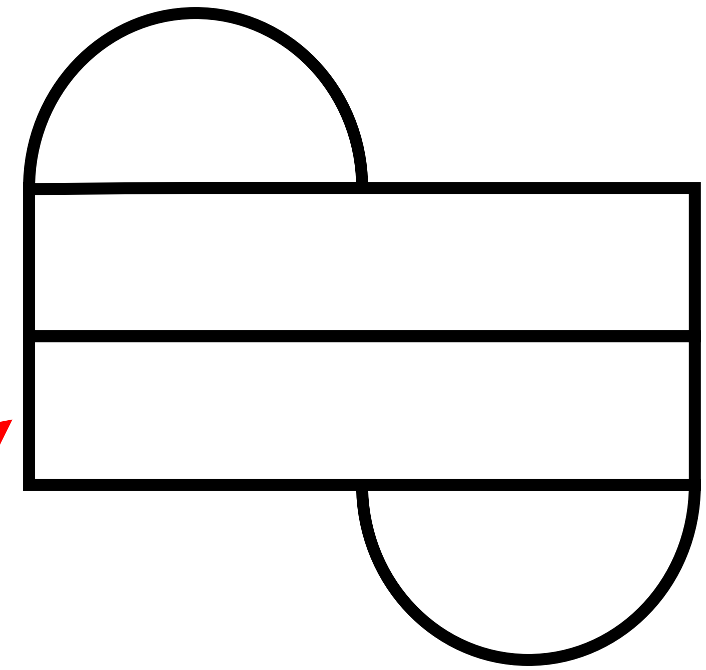
Compare the Info

Build 1

The patterns are made with identical rectangles and semi-circles.



Pattern A = 50



One extra rectangle, 20 more

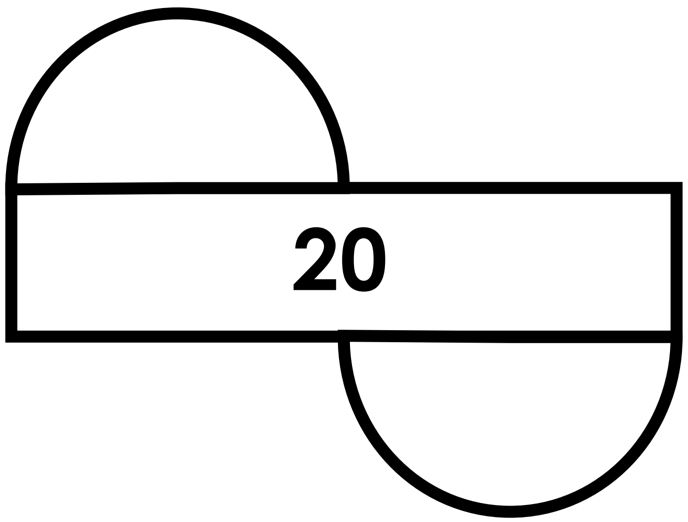
Pattern B = 70

= 20

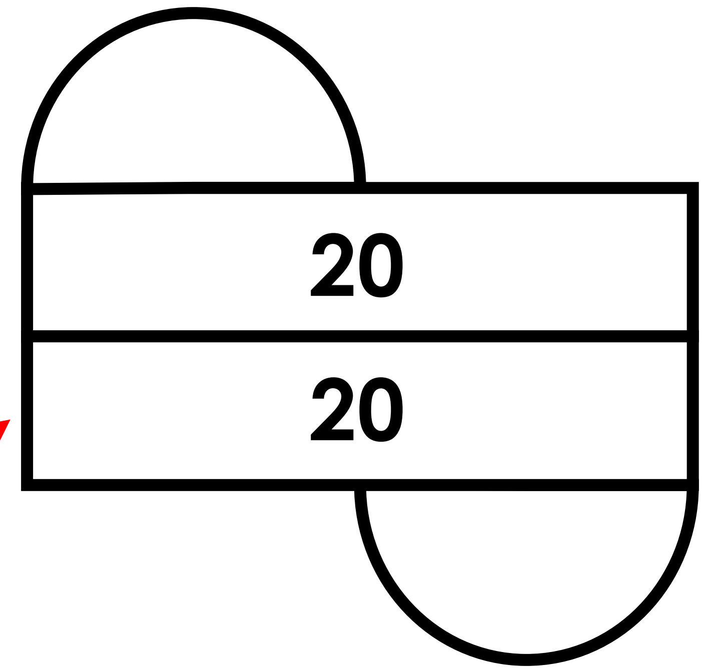
Compare the Info

Build 1

The patterns are made with identical rectangles and semi-circles.



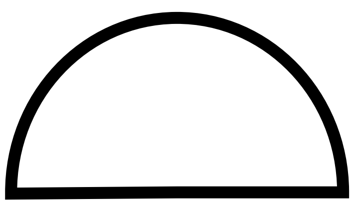
Pattern A = 50



One extra rectangle, 20 more

Pattern B = 70

= 20



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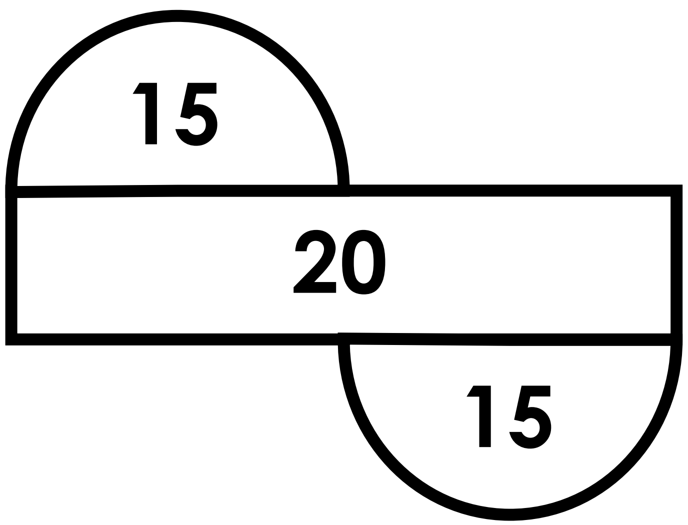
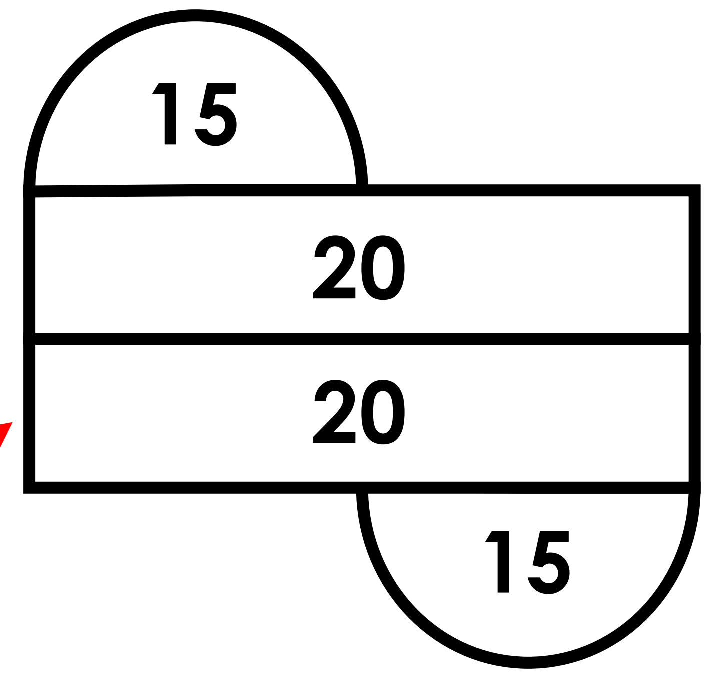
Compare the Info

Build 1

The patterns are made with identical rectangles and semi-circles.



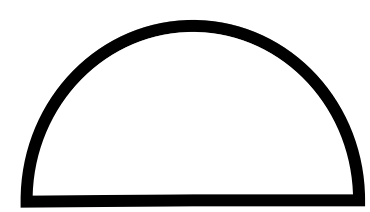
Pattern A = 50



One extra rectangle, 20 more

Pattern B = 70

= 20

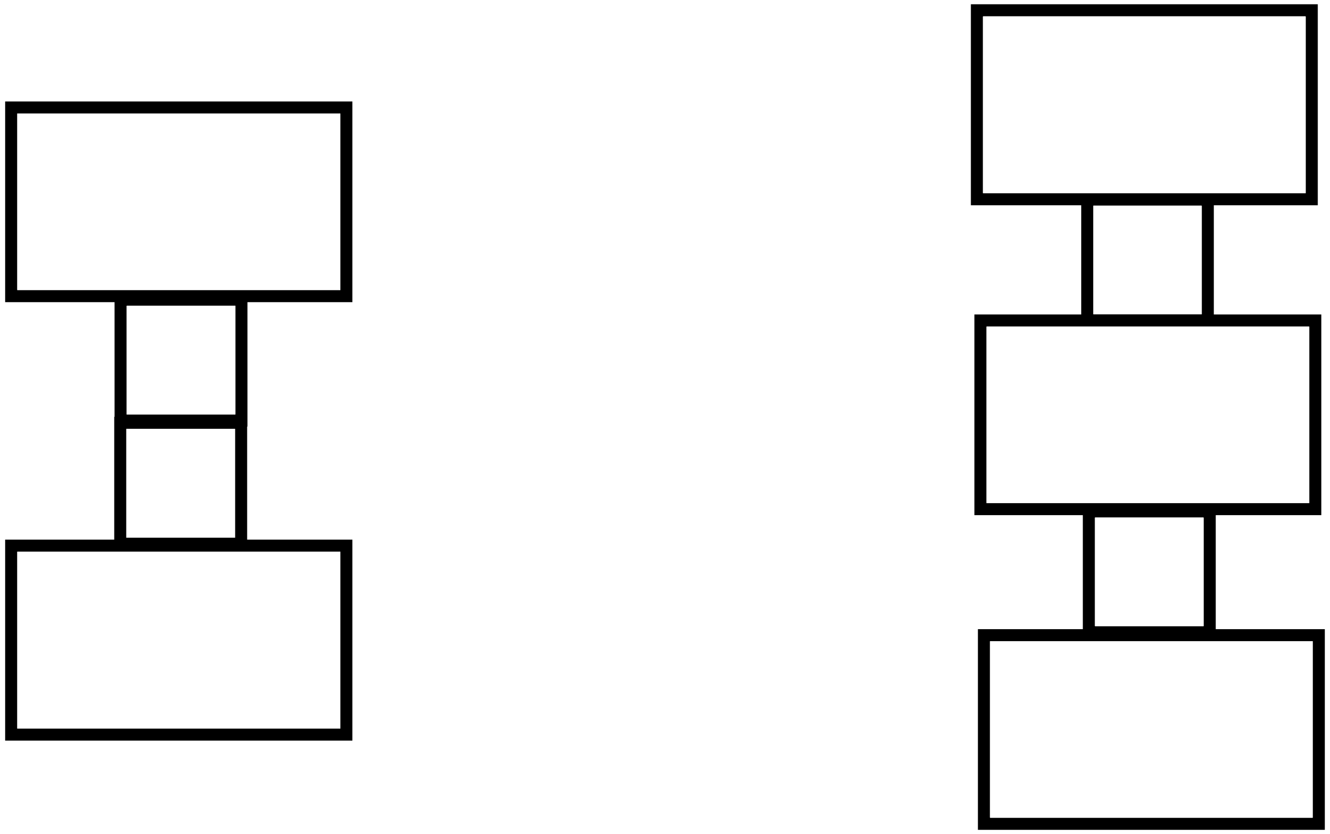


= 15

Compare the Info

Build 2

The towers are made with identical squares and identical rectangles.

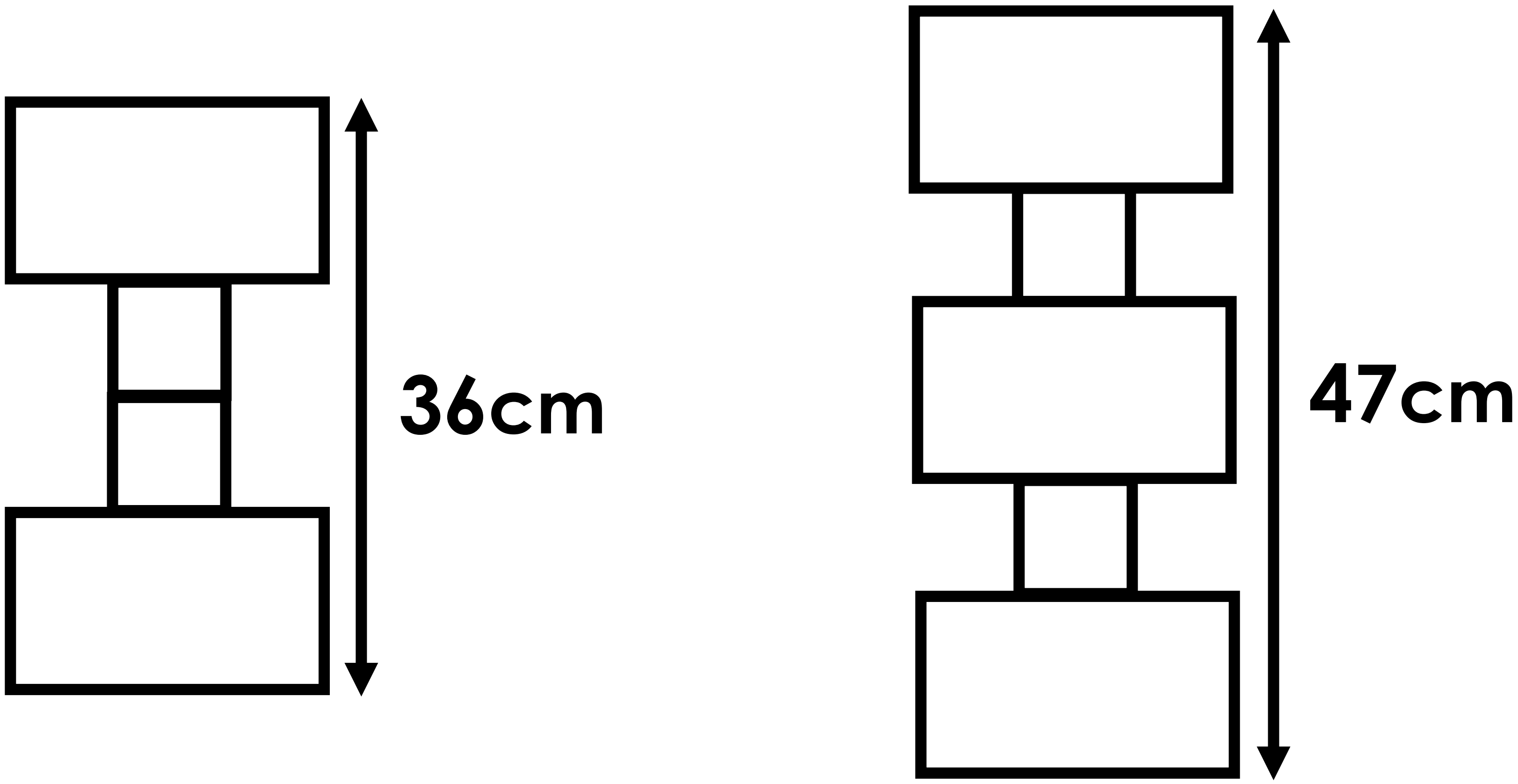


Spot the difference.

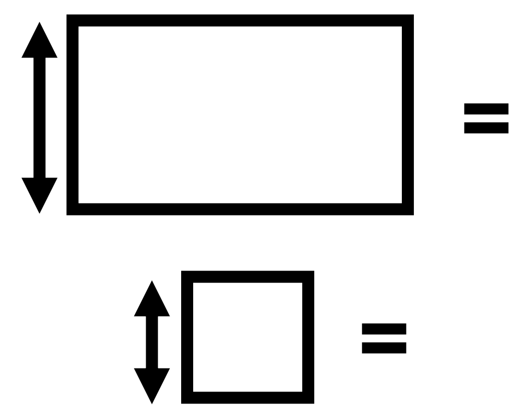
Compare the Info

Build 2

The towers are made with identical squares and identical rectangles.



Calculate the height of a rectangle and the height of and a square.



Compare the Info

Build 2

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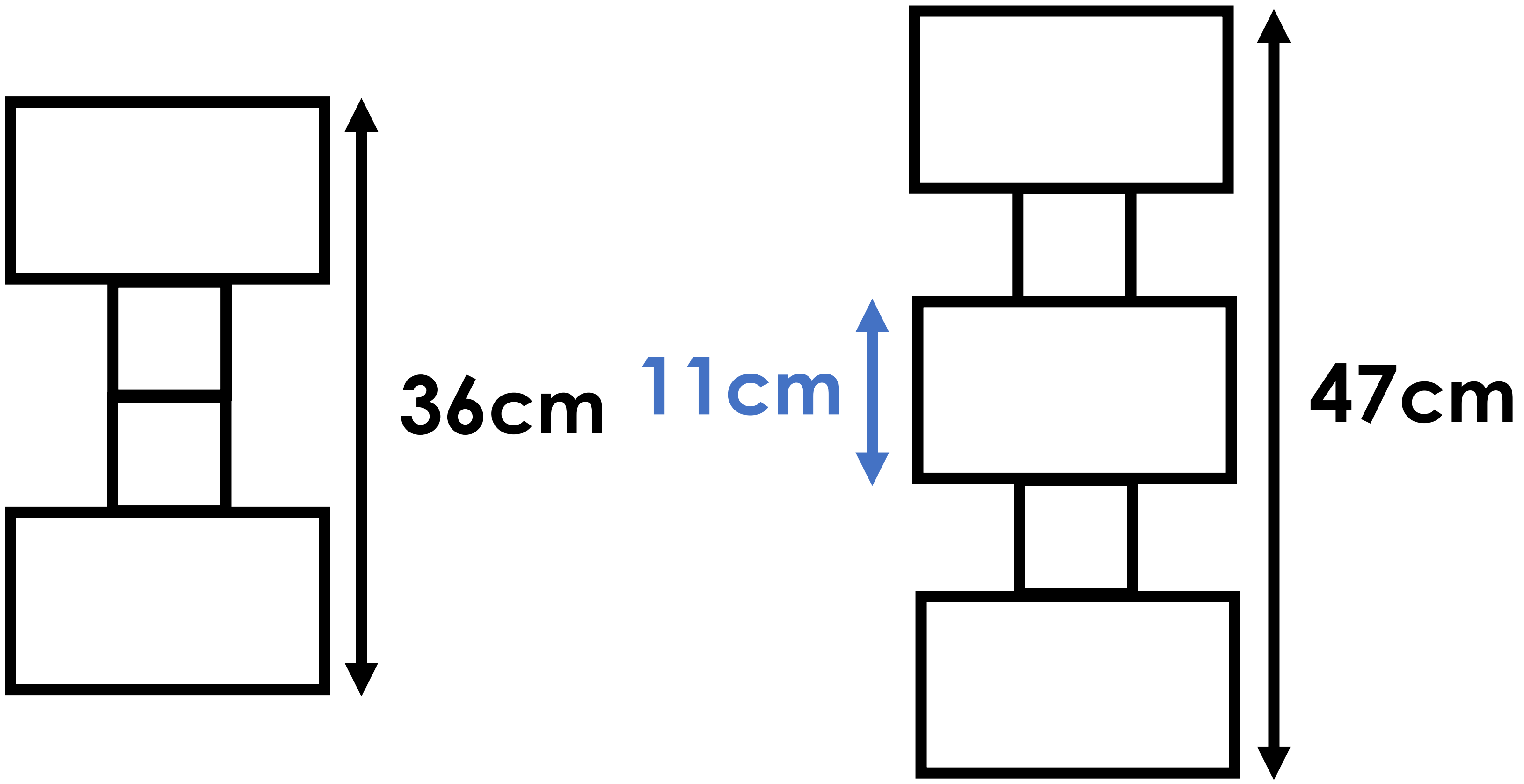

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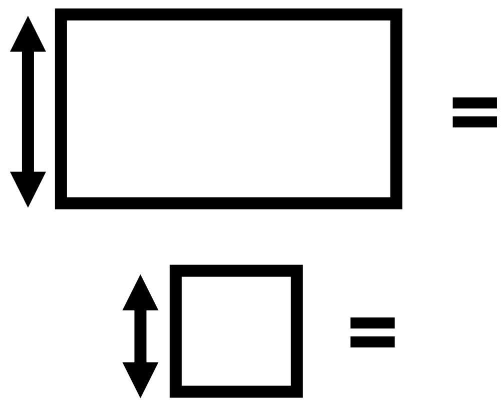

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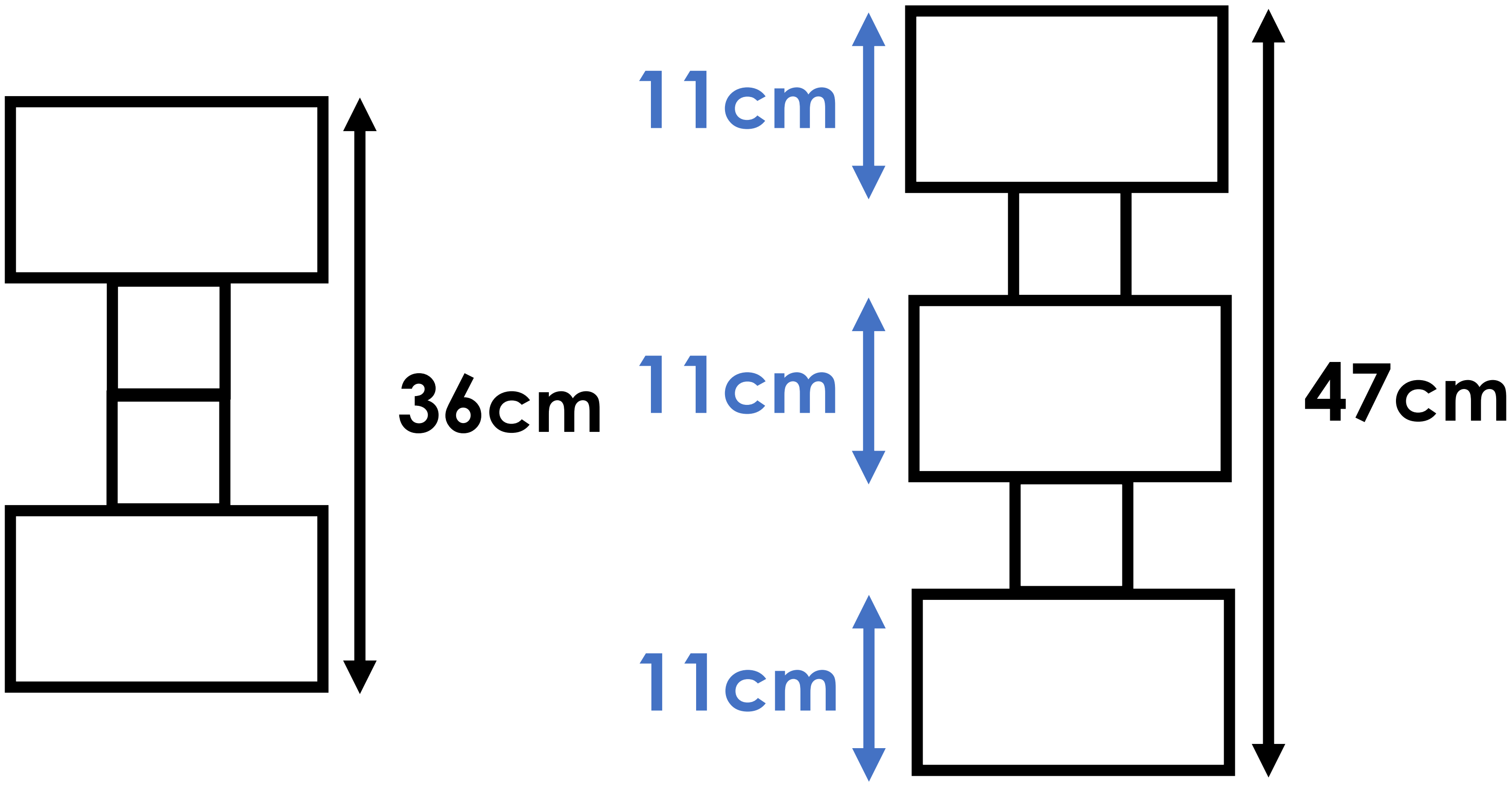

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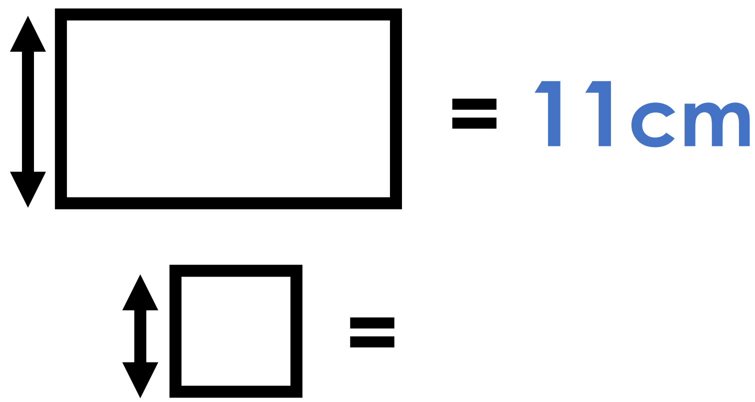

Compare the Info

Build 2

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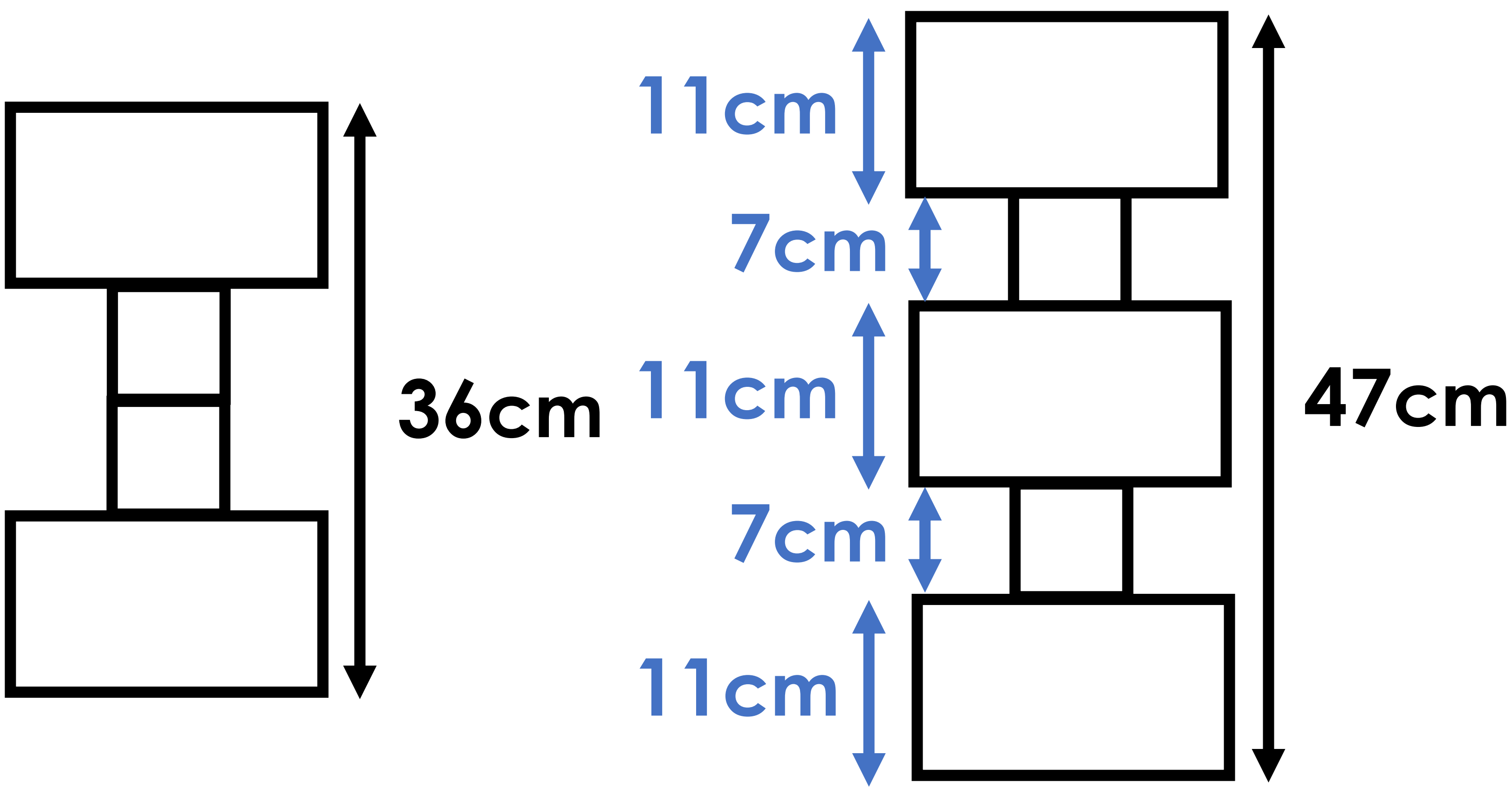

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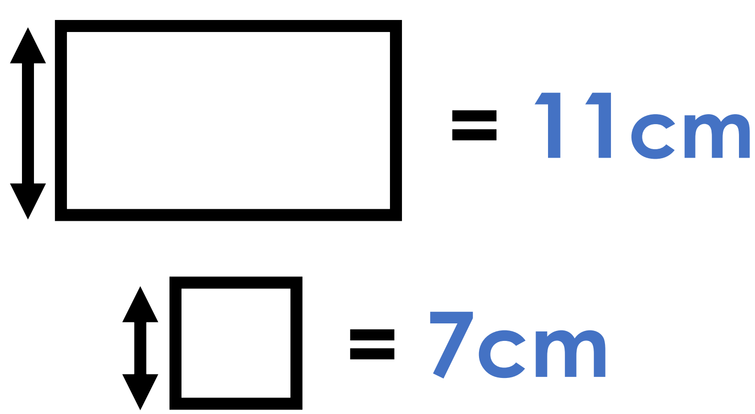


Compare the Info

Build 2

3 adults and **2** children go to the show.

They pay $\boxed{}$ for their tickets.

2 adults and **2** children go to the show.

They pay $\boxed{}$ for their tickets.

What could the question be?

Compare the Info

Build 2

3 adults and **2** children go to the show.

They pay $\square$ for their tickets.

2 adults and **2** children go to the show.

They pay $\square$ for their tickets.

What is the cost of a child ticket to the show?

Child ticket = $\square$

Compare the Info

Build 2

3 adults and **2** children go to the show.

They pay $\boxed{}$ for their tickets.

2 adults and **2** children go to the show.

They pay **£44** for their tickets.

What is the cost of a child ticket to the show?

Child ticket = $\boxed{}$

Give a possible answer.

Clue: *Adult tickets are more expensive than child tickets.*

3 adults and **2** children go to the show.
They pay **£58** for their tickets.

2 adults and **2** children go to the show.
They pay **£44** for their tickets.

What is the cost of a child ticket to the show?

Child ticket = ☐

Compare the Info

Build 2

3 adults and **2** children go to the show.
They pay **£58** for their tickets.

2 adults and **2** children go to the show.
They pay **£44** for their tickets.

What is the cost of a child ticket to the show?

Child ticket = $\boxed{}$

A A A C C **= £58**

A A C C **= £44**

Compare the Info

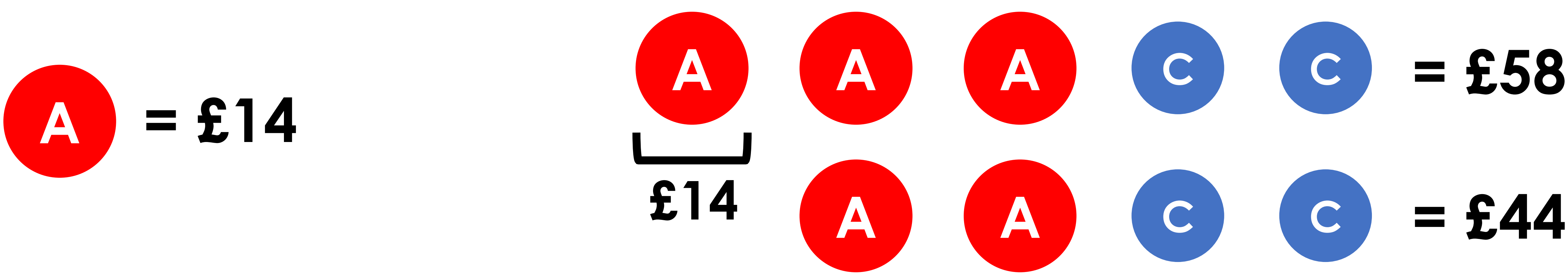
Build 2

3 adults and **2** children go to the show.
They pay **£58** for their tickets.

2 adults and **2** children go to the show.
They pay **£44** for their tickets.

What is the cost of a child ticket to the show?

Child ticket = $\boxed{}$

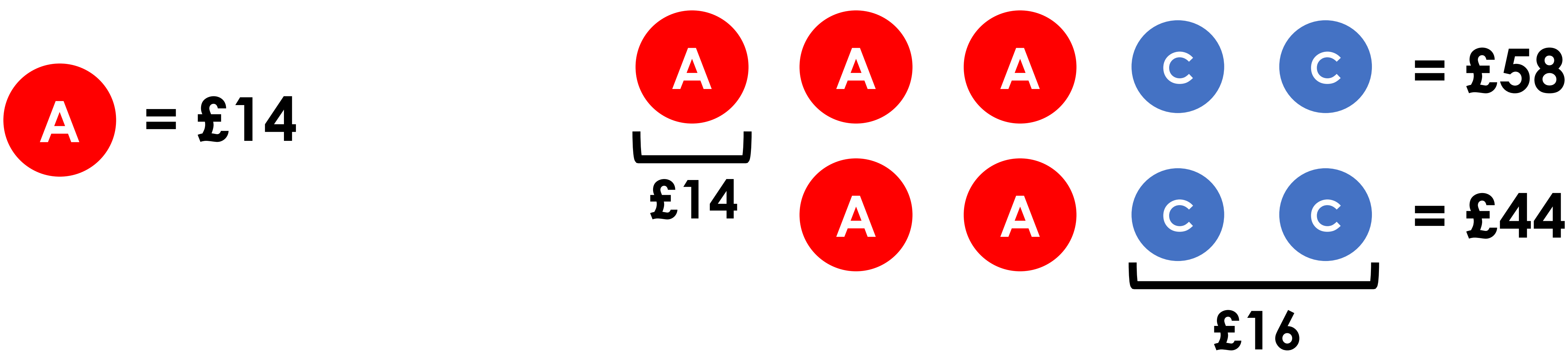


3 adults and 2 children go to the show.
They pay **£58** for their tickets.

2 adults and 2 children go to the show.
They pay **£44** for their tickets.

What is the cost of a child ticket to the show?

Child ticket = $\boxed{}$

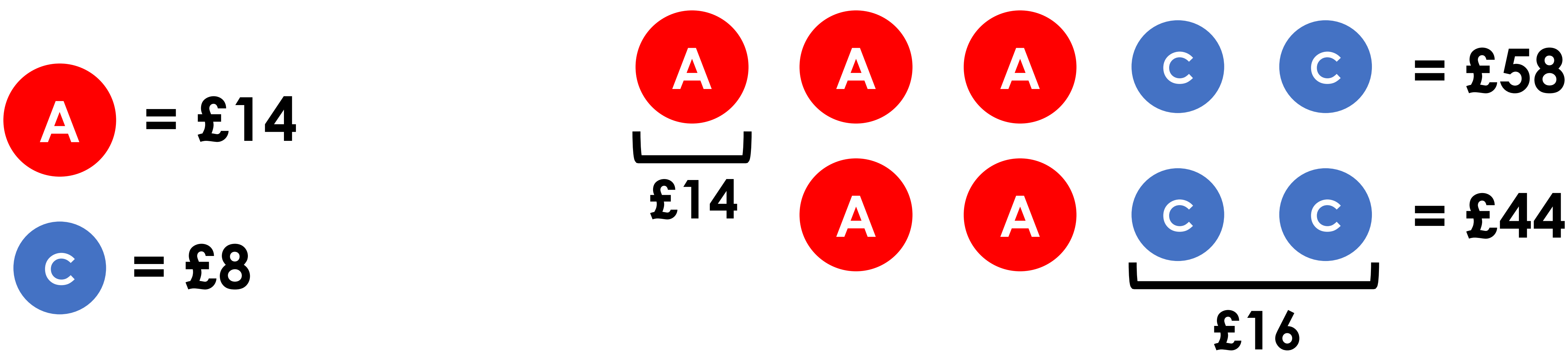


3 adults and **2** children go to the show.
They pay $\boxed{\textbf{£58}}$ for their tickets.

2 adults and **2** children go to the show.
They pay $\boxed{\textbf{£44}}$ for their tickets.

What is the cost of a child ticket to the show?

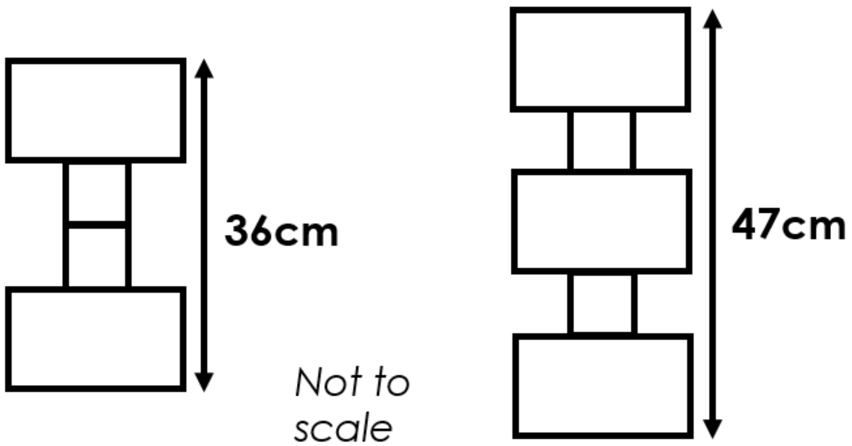
Child ticket = $\boxed{\textbf{£8}}$



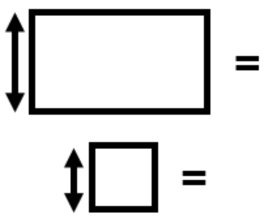
Compare the Info

Build 2

The towers are made with identical squares and identical rectangles.



Calculate the height of a rectangle the height of and a square.



The questions are similar because…

3 adults and **2** children go to the show.
They pay ☐ for their tickets.

2 adults and **2** children go to the show.
They pay ☐ for their tickets.

What is the cost of a child ticket to the show?

Child ticket = ☐

At the bike shop, it costs **£6** to hire a bike plus **£4** for each hour that it is used.

How much does it cost to hire a bike for 5 hours?

At the bike shop, it costs **£6** to hire a bike plus **£4** for each hour that it is used.

How much does it cost to hire a bike for 5 hours?

Explain the Mistake:

£6 × 5 + £4 = £34

At the bike shop, it costs **£6** to hire a bike plus **£4** for each hour that it is used.

How much does it cost to hire a bike for 5 hours?

Correct Answer:

£4 × 5 + £6 = £26

£4	£4	£4	£4	£4	£6

Tickets at the cinema cost **£9** plus there is a **£3** booking fee.

How much does it cost to buy 4 cinema tickets?

Tickets at the cinema cost **£9** plus there is a **£3** booking fee.

How much does it cost to buy 4 cinema tickets?

Explain the Mistakes:

£9 × 3 + £3 = £30

Tickets at the cinema cost **£9** plus there is a **£3** booking fee.

How much does it cost to buy 4 cinema tickets?

Correct Answer:

£9 × 4 + £3 = £39

£9	**£9**	**£9**	**£9**	**£3**

Make Your Own Pizza

£3.50 for the pizza base

75p per topping

Tom makes a pizza using 3 toppings.

How much does it cost?

Make Your Own Pizza
£3.50 for the pizza base
75p per topping

Tom makes a pizza using 3 toppings.
How much does it cost?

£3.50	**75p**	**75p**	**75p**

Make Your Own Pizza

£3.50 for the pizza base

75p per topping

Tom makes a pizza using 3 toppings.

How much does it cost?

£3.50	**75p**	**75p**	**75p**

£5.75

Make Your Own Pizza

£3.50 for the pizza base

75p per topping

Amy has £7.

How many toppings can she afford?

Make Your Own Pizza

£3.50 for the pizza base

75p per topping

Amy has £7.

How many toppings can she afford?

£7

£3.50	**75p**	**75p**	**75p**	**75p**	**75p**

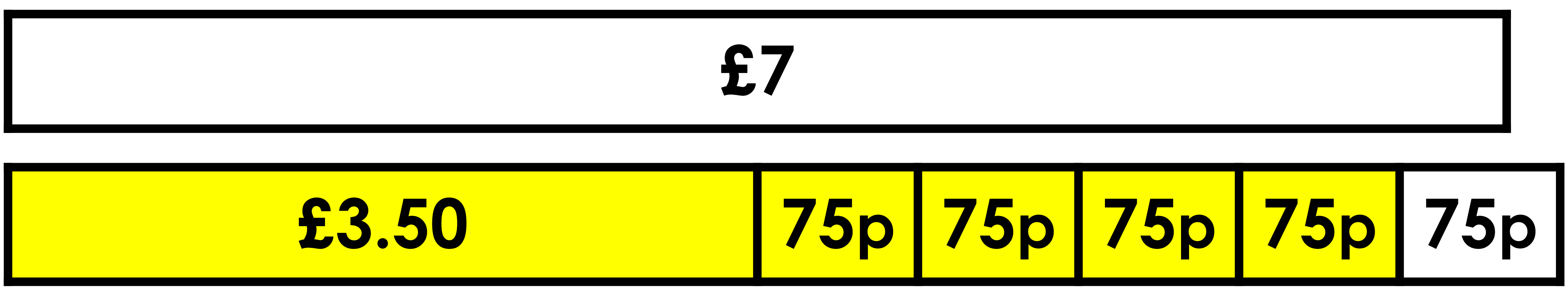
Make Your Own Pizza

£3.50 for the pizza base

75p per topping

Amy has £7.

How many toppings can she afford?



Amy can afford 4 toppings.

Gym Prices:
£8 per session for non-members
£5 per session for members
Membership: £20 per year

You save money by being a member of the gym if…

There is a **2km** relay race at the park.

How far does each person run?

What information must be given?

There is a **2km** relay race at the park.

There are $\boxed{}$ runners on a team.

How far does each person run?

There is a **2km** relay race at the park.

There are $\boxed{5}$ runners on a team.

How far does each person run?

There is a **2km** relay race at the park.

There are $\boxed{5}$ runners on a team.

How far does each person run?

$$2\text{km} \times 1000 = 2000\text{m}$$

There is a **2km** relay race at the park.

There are $\boxed{5}$ runners on a team.

How far does each person run?

2km × 1000 = 2000m

2000m ÷ 5 = <u>400m</u>

Multi-Step Measures

Build 1

A bakery has an order for $\square$ cakes.

The bakery has **3kg** of sugar.

How much sugar does the bakery have left?

What information must be given?

A bakery has an order for $\square$ cakes.

There is **350g** of sugar in each cake.

The bakery has **3kg** of sugar.

How much sugar does the bakery have left?

A bakery has an order for $\boxed{6}$ cakes.

There is **350g** of sugar in each cake.

The bakery has **3kg** of sugar.

How much sugar does the bakery have left?

A bakery has an order for $\boxed{6}$ cakes.

There is **350g** of sugar in each cake.

The bakery has **3kg** of sugar.

How much sugar does the bakery have left?

$350g \times 6 = 2100g$

A bakery has an order for $\boxed{6}$ cakes.

There is **350g** of sugar in each cake.

The bakery has **3kg** of sugar.

How much sugar does the bakery have left?

$350\text{g} \times 6 = 2100\text{g}$

$3000\text{g} - 2100\text{g} = \underline{900\text{g}}$

Maria is baking cakes.

Maria has **1.2kg** of butter.

What could the information be?

What could the question be?

Multi-Step Measures

Build 2

Maria is baking cakes.

Maria has **1.2kg** of butter.

180g of butter is needed to make a cake.

What could the question be?

Maria is baking cakes.

Maria has **1.2kg** of butter.

180g of butter is needed to make a cake.

How many cakes can she make?

Maria is baking cakes.

Maria has **1.2kg** of butter.

180g of butter is needed to make a cake.

How many cakes can she make?

1.2kg × 1000 = 1200g

Maria is baking cakes.

Maria has **1.2kg** of butter.

180g of butter is needed to make a cake.

How many cakes can she make?

1.2kg × 1000 = 1200g

180g × 5 = 900g

180g × 6 = 1080g

180g × 7 = 1260g

Maria is baking cakes.

Maria has **1.2kg** of butter.

180g of butter is needed to make a cake.

How many cakes can she make?

1.2kg × 1000 = 1200g

Maria can make 6 cakes

180g × 5 = 900g

180g × 6 = 1080g

180g × 7 = 1260g

Stan wakes up at 7:35am.

Mike wakes up $\boxed{}$ Stan.

At what time does Mike wake up?

Stan wakes up at 7:35am.

Mike wakes up $\boxed{}$ Stan.

At what time does Mike wake up?

The answer is between 8:00am and 8:30am.

What information could be in the box?

Stan wakes up at 7:35am.

Mike wakes up $\boxed{\frac{3}{4}\text{ hour after}}$ Stan.

At what time does Mike wake up?

Stan wakes up at 7:35am.

Mike wakes up $\boxed{\frac{3}{4} \text{ hour after}}$ Stan.

At what time does Mike wake up?

Explain the Mistake:

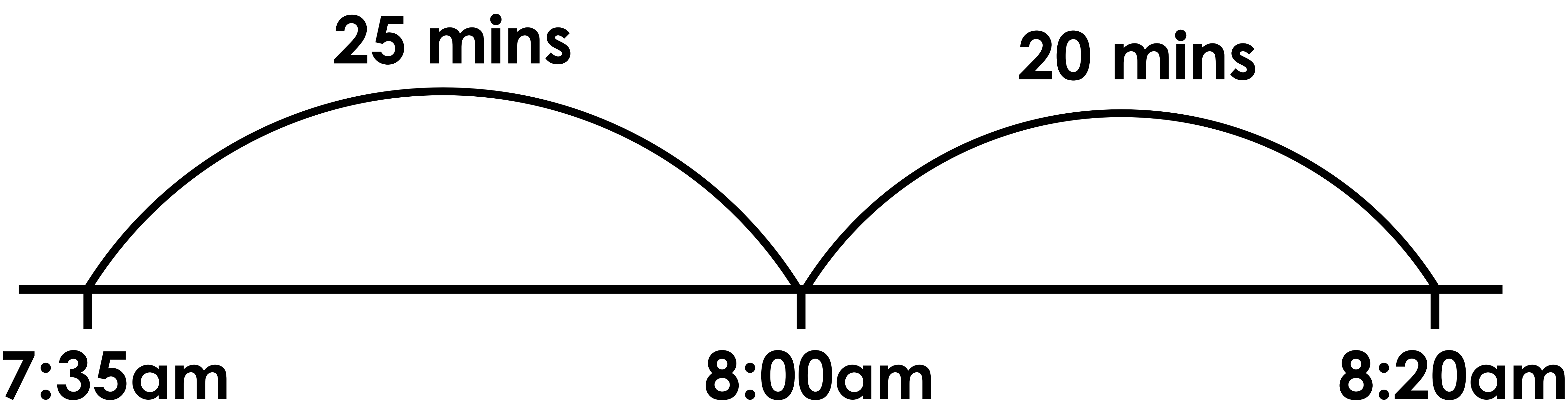
45 minutes after 7:35am is 7:80am

Stan wakes up at 7:35am.

Mike wakes up $\boxed{\frac{3}{4}\text{ hour after}}$ Stan.

At what time does Mike wake up?

Answer:



Kim ran a **10km** race in **51 minutes 15 seconds**

Becky finished $\boxed{}$ before Kim.

How long did it take Becky to run the race?

Kim ran a **10km** race in **51 minutes 15 seconds**

Becky finished $\boxed{}$ before Kim.

How long did it take Becky to run the race?

The answer is between 49 minutes and 50 minutes.

What information could be in the box?

Kim ran a **10km** race in **51 minutes 15 seconds**

Becky finished **1 minute 40 seconds** before Kim.

How long did it take Becky to run the race?

Kim ran a **10km** race in **51 minutes 15 seconds**

Becky finished **1 minute 40 seconds** before Kim.

How long did it take Becky to run the race?

Explain the Mistake:

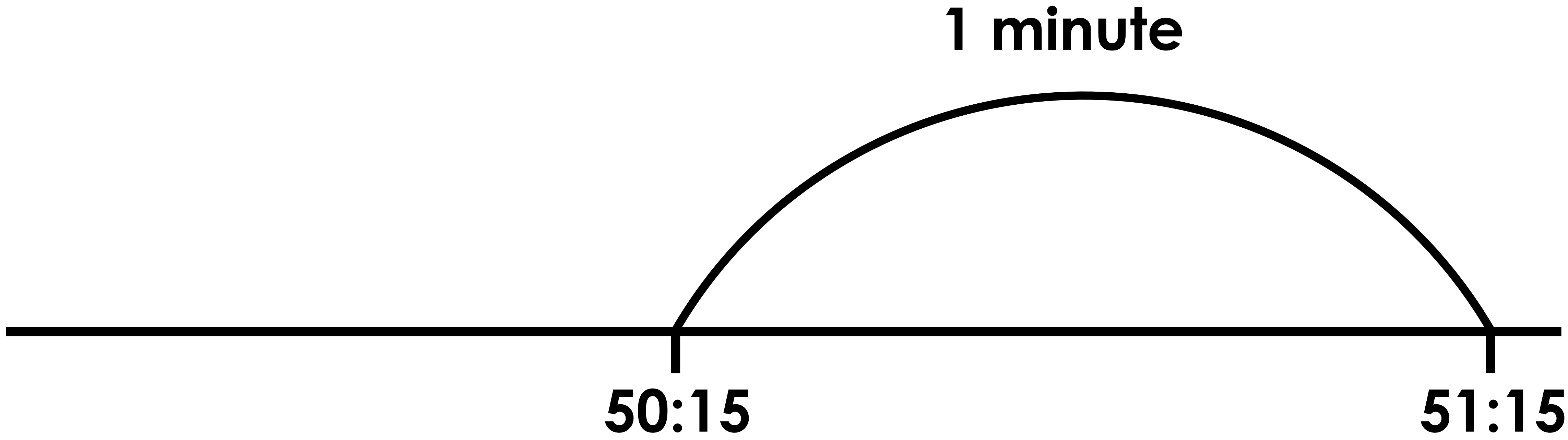
52 minutes 55 seconds

Kim ran a **10km** race in **51 minutes 15 seconds**

Becky finished **1 minute 40 seconds** before Kim.

How long did it take Becky to run the race?

Answer:

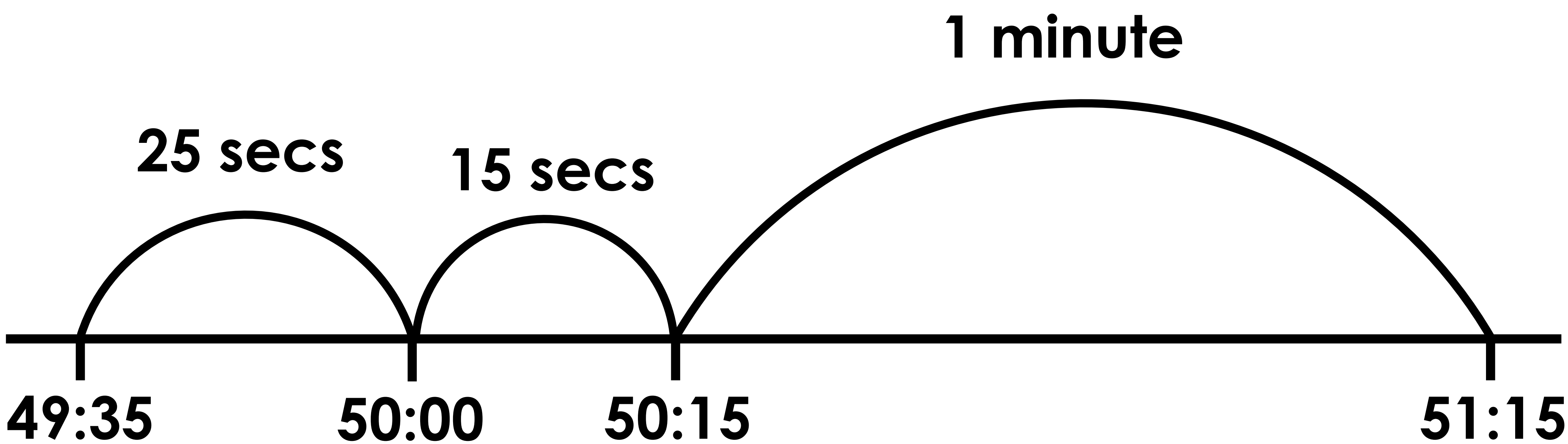


Kim ran a **10km** race in **51 minutes 15 seconds**

Becky finished $\boxed{\textbf{1 minute 40 seconds}}$ before Kim.

How long did it take Becky to run the race?

Answer:



Here are two train timetables:

Sheffield	7:13	8:13	9:01
Doncaster	7:42	8:40	9:30
York	8:09	9:07	9:57
Durham	8:57	9:54	10:46
Newcastle	9:18	10:15	11:08

York	7:34	9:15	10:56
Malton	7:59	9:40	11:21
Seamer	8:16	9:57	11:38
Eastfield	8:22	10:03	12:14

Kam arrives in Doncaster station at 8:43.

How long will it take him to arrive in Newcastle?

Here are two train timetables:

Sheffield	7:13	8:13	9:01
Doncaster	7:42	8:40	9:30
York	8:09	9:07	9:57
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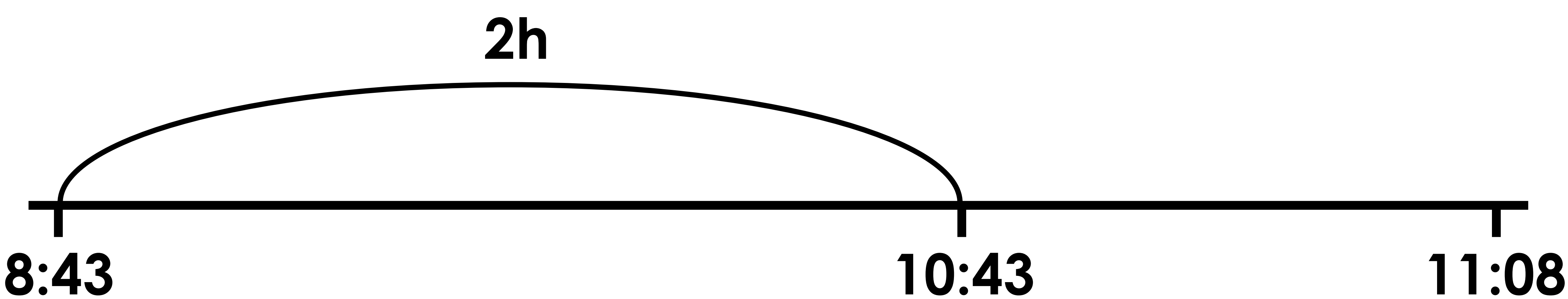

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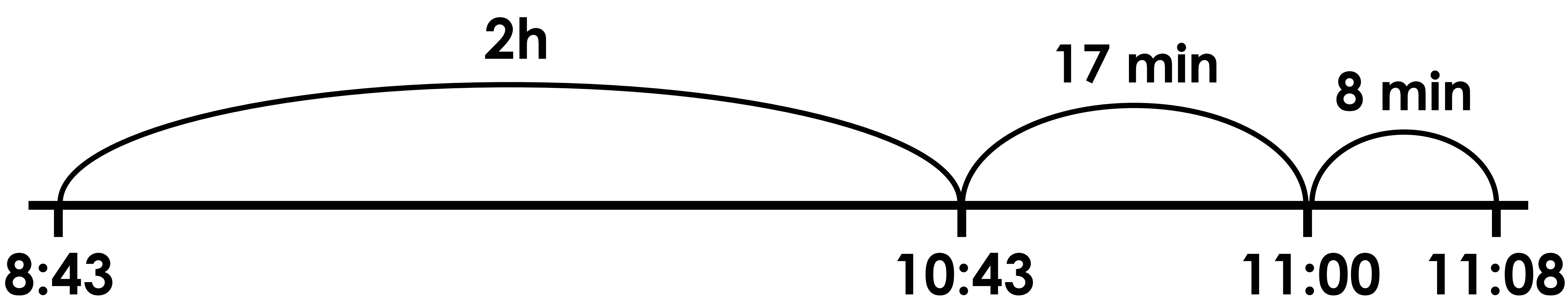
Malton	7:59	9:40	11:21
Seamer	8:16	9:57	11:38
Eastfield	8:22	10:03	12:14

Kam arrives in Doncaster station at 8:43.

How long will it take him to arrive in Newcastle?

2 hours, 25 mins



Build 2

Here are two train timetables:

Sheffield	7:13	8:13	9:01
Doncaster	7:42	8:40	9:30
York	8:09	9:07	9:57
Durham	8:57	9:54	10:46
Newcastle	9:18	10:15	11:08

York	7:34	9:15	10:56
Malton	7:59	9:40	11:21
Seamer	8:16	9:57	11:38
Eastfield	8:22	10:03	12:14

Kate gets the 8:13 train from Sheffield. She is travelling to Seamer. **How long is Kate's journey?**

Here are two train timetables:

Sheffield	7:13	8:13	9:01
Doncaster	7:42	8:40	9:30
York	8:09	9:07	9:57
Durham	8:57	9:54	10:46
Newcastle	9:18	10:15	11:08

York	7:34	9:15	10:56
Malton	7:59	9:40	11:21
Seamer	8:16	9:57	11:38
Eastfield	8:22	10:03	12:14

Kate gets the 8:13 train from Sheffield. She is travelling to Seamer. **How long is Kate's journey?**

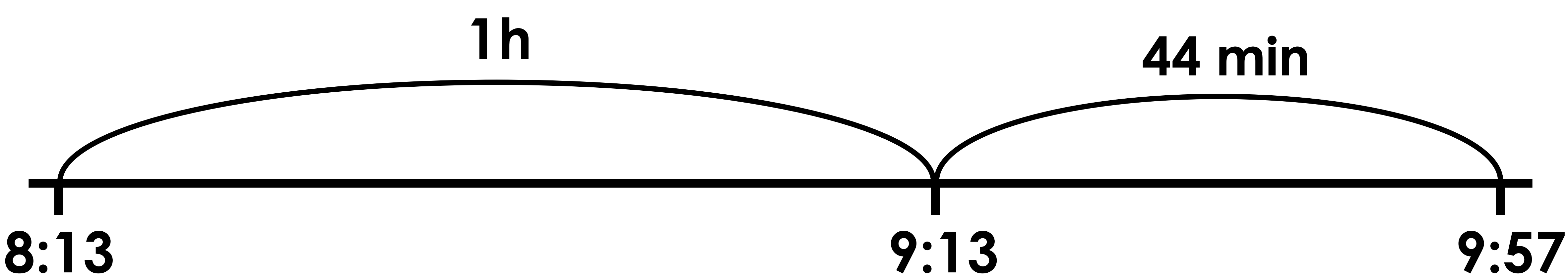
Here are two train timetables:

Sheffield	7:13	8:13	9:01
Doncaster	7:42	8:40	9:30
York	8:09	9:07	9:57
Durham	8:57	9:54	10:46
Newcastle	9:18	10:15	11:08

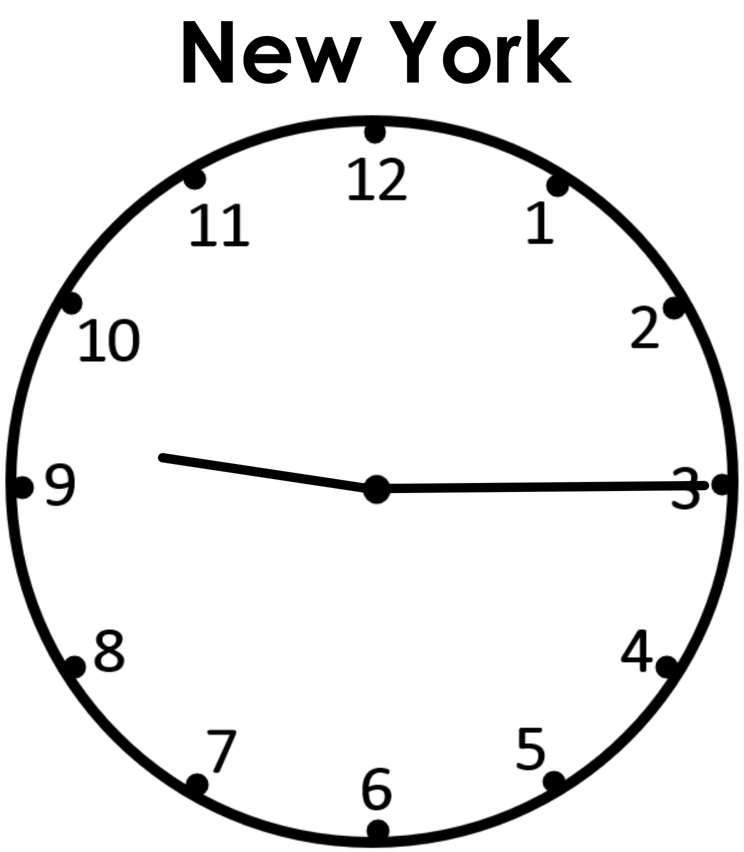
York	7:34	9:15	10:56
Malton	7:59	9:40	11:21
Seamer	8:16	9:57	11:38
Eastfield	8:22	10:03	12:14

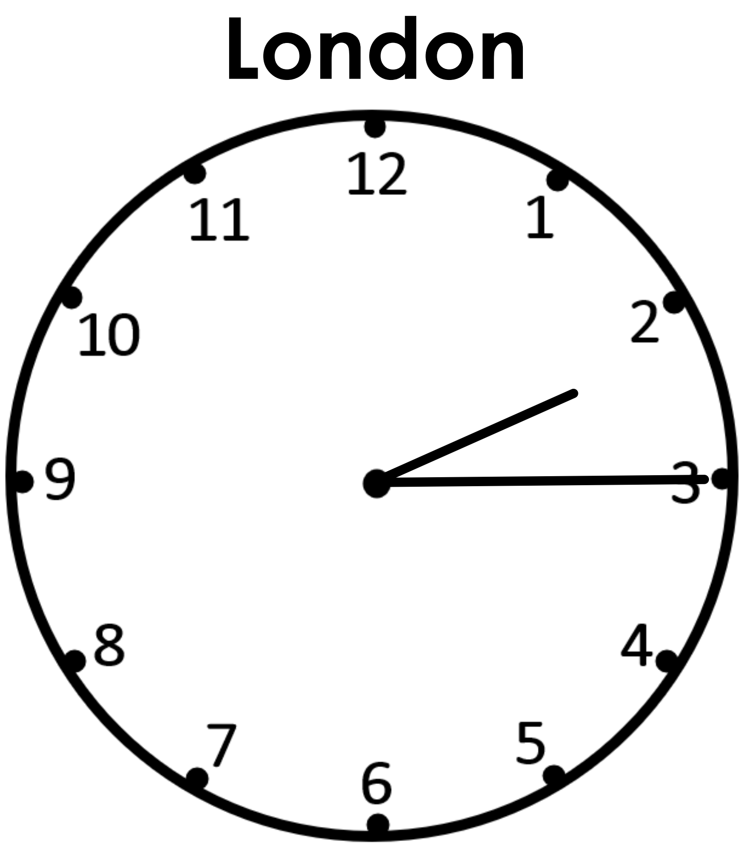
Kate gets the 8:13 train from Sheffield. She is travelling to Seamer. **How long is Kate's journey?**

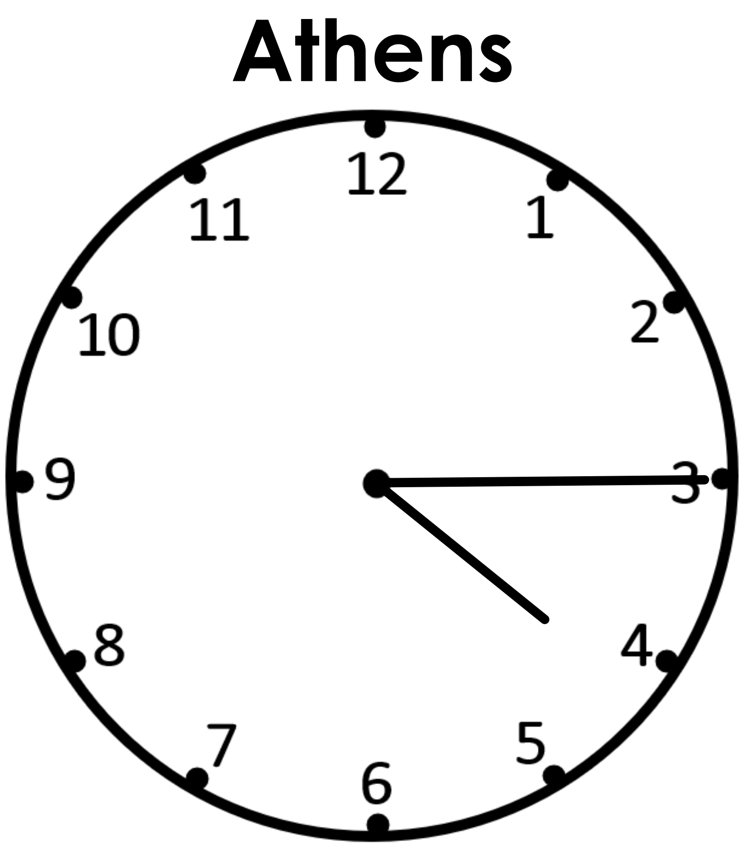
1 hour 44 mins



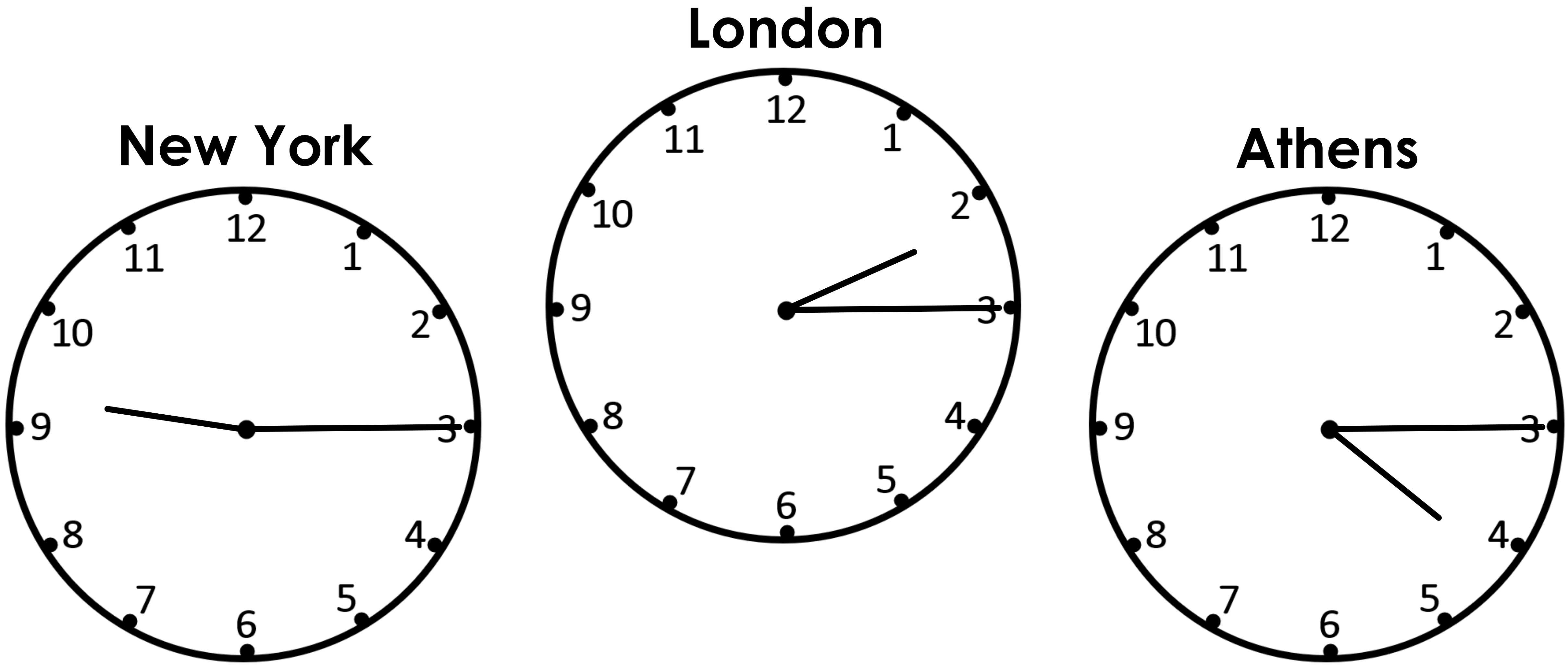
These clocks show the time in different cities at UK time **14:15**





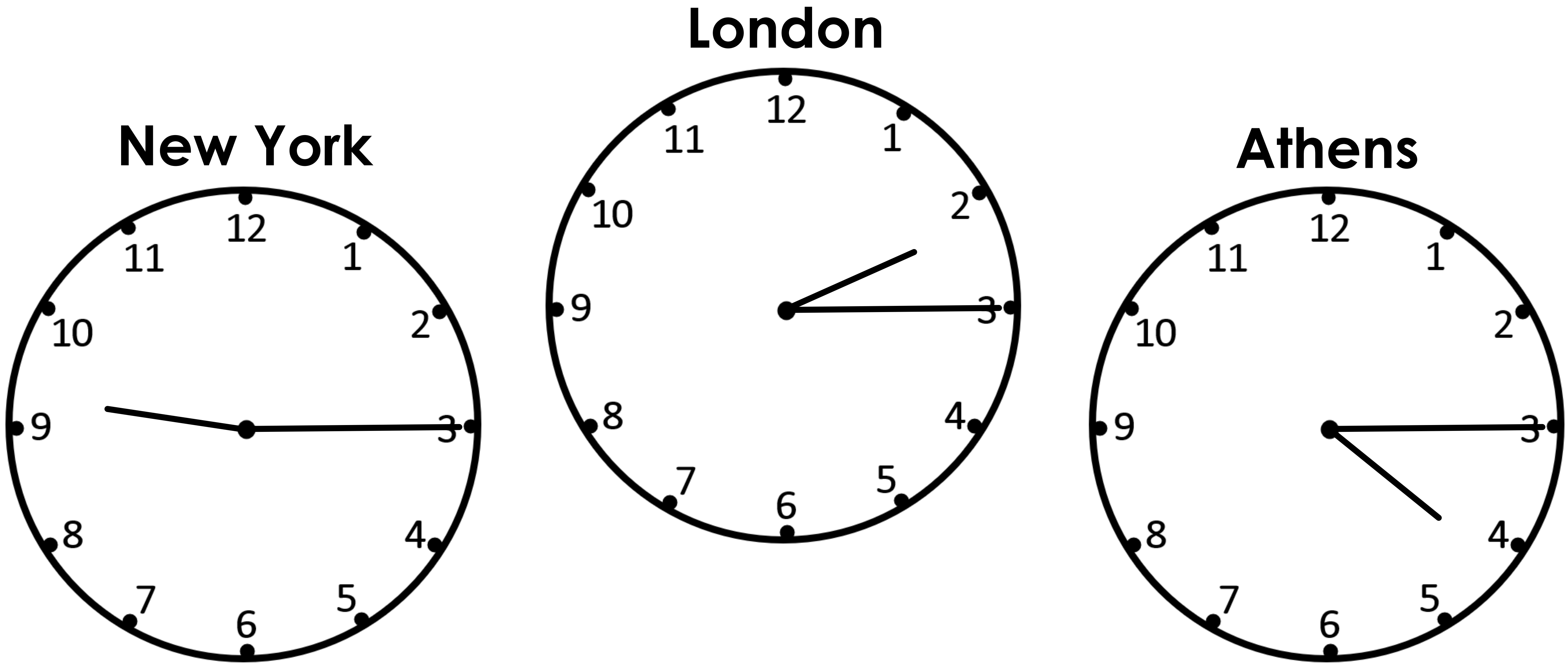


These clocks show the time in different cities at UK time **14:15**



When the time in Athens is 20:45, what is the time in New York?

These clocks show the time in different cities at UK time **14:15**



When the time in Athens is 20:45, what is the time in New York?

13:45 in New York

Converting Units of Time

Build 1

The blue line represents **1 day**

The red line represents

Converting Units of Time

Build 1

The blue line represents **1 day**

The red line represents **20 hours**

The blue line represents **1 day**

The red line represents **20 hours**

There are 24 hours in a day.

1 day **>** 24 hours

The green line represents **180 minutes**

The purple line represents

The green line represents **180 minutes**

The purple line represents **3 hours**

The green line represents **180 minutes**

The purple line represents **3 hours**

There are 60 minutes in an hour.

180 minutes = 3 hours

The pink line represents **2 months**

The orange line represents

The pink line represents **2 months**

The orange line represents **9 weeks**

The pink line represents **2 months**

The orange line represents **9 weeks**

There are 28-31 days in a month.
There are 7 days in a week.

2 months **<** 9 weeks

14th July, 1:40pm

What will the time be in **200 minutes?**

What was the time and date **52 hours ago?**

14th July, 1:40pm

What will the time be in **200 minutes?**

later

What was the time and date **52 hours ago?**

14th July, 1:40pm

What will the time be in **200 minutes?**

60 mins = 1 hour

later

What was the time and date **52 hours ago?**

14th July, 1:40pm

What will the time be in **200 minutes?**

later

60 mins = 1 hour

180 mins = 3 hours

200 mins = 3 hours 20 mins

What was the time and date **52 hours ago?**

14th July, 1:40pm

What will the time be in **200 minutes?**

later

60 mins = 1 hour

180 mins = 3 hours

200 mins = 3 hours 20 mins

5:00pm

What was the time and date **52 hours ago?**

14^{th} July, 1:40pm

What will the time be in **200 minutes?**

later

60 mins = 1 hour

180 mins = 3 hours

200 mins = 3 hours 20 mins

5:00pm

What was the time and date **52 hours ago?**

earlier

14^{th} July, 1:40pm

What will the time be in **200 minutes?**

later

60 mins = 1 hour

180 mins = 3 hours

200 mins = 3 hours 20 mins

5:00pm

What was the time and date **52 hours ago?**

earlier

24 hours = 1 day

14^{th} July, 1:40pm

What will the time be in **200 minutes?**

later

60 mins = 1 hour

180 mins = 3 hours

200 mins = 3 hours 20 mins

5:00pm

What was the time and date **52 hours ago?**

earlier

24 hours = 1 day

48 hours = 2 days

52 hours = 2 days 4 hours

14th July, 1:40pm

What will the time be in **200 minutes?**

later

60 mins = 1 hour

180 mins = 3 hours

200 mins = 3 hours 20 mins

5:00pm

What was the time and date **52 hours ago?**

earlier

24 hours = 1 day

48 hours = 2 days

52 hours = 2 days 4 hours

12th July, 9:40am

Build 2

Days:

January:

February:

March:

April:

May:

June:

July:

August:

September:

October:

November:

December:

Days:

January:

February: **28-29**

March:

April: **30**

May:

June: **30**

July:

August:

September: **30**

October:

November: **30**

December:

Converting Units of Time

Build 2

Days:

January: **31**

February: **28-29**

March: **31**

April: **30**

May: **31**

June: **30**

July: **31**

August: **31**

September: **30**

October: **31**

November: **30**

December: **31**

What will the date be **1 week after 25th October?**

What was the date **1 week before 2nd October?**

Days:

January: **31**

February: **28-29**

March: **31**

April: **30**

May: **31**

June: **30**

July: **31**

August: **31**

September: **30**

October: **31**

November: **30**

December: **31**

What will the date be **1 week after 25th October?**

6 days later is the last day in October

What was the date **1 week before 2nd October?**

Days:

January: **31**

February: **28-29**

March: **31**

April: **30**

May: **31**

June: **30**

July: **31**

August: **31**

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What will the date be **1 week after 25th October?**

6 days later is the last day in October

Answer: 1st November

What was the date **1 week before 2nd October?**

Days:

January: **31**

February: **28-29**

March: **31**

April: **30**

May: **31**

June: **30**

July: **31**

August: **31**

September: **30**

October: **31**

November: **30**

December: **31**

What will the date be **1 week after 25th October?**

6 days later is the last day in October

Answer: 1st November

What was the date **1 week before 2nd October?**

2 days earlier was the last day in September

Days:

January: **31**

February: **28-29**

March: **31**

April: **30**

May: **31**

June: **30**

July: **31**

August: **31**

September: **30**

October: **31**

November: **30**

December: **31**

What will the date be **1 week after 25th October?**

6 days later is the last day in October

Answer: 1st November

What was the date **1 week before 2nd October?**

2 days earlier was the last day in September

Answer: 25th September

Days:

January: **31**

February: **28-29**

March: **31**

April: **30**

May: **31**

June: **30**

July: **31**

August: **31**

September: **30**

October: **31**

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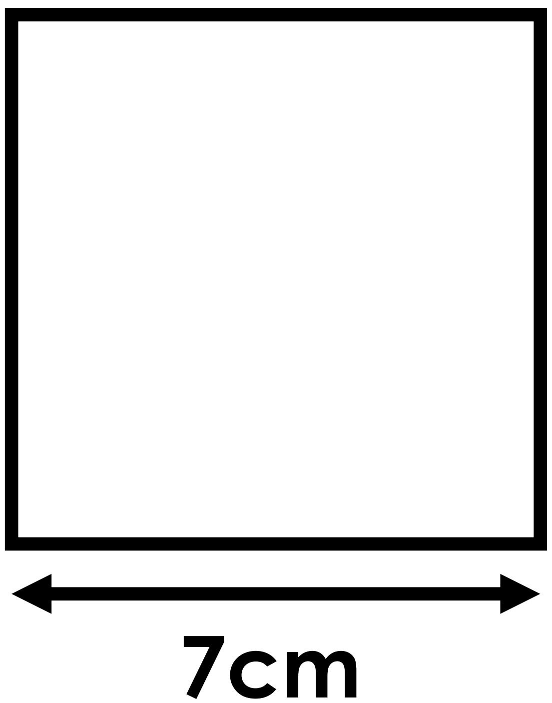


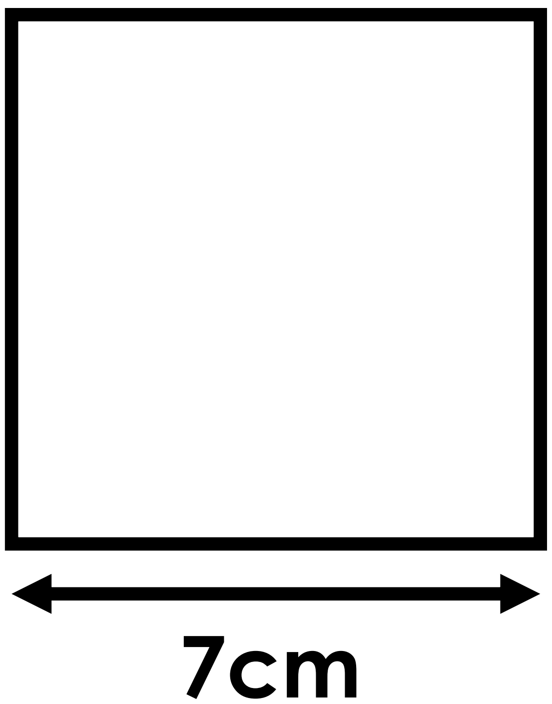
: 7cm × 7cm =

: 7cm × 4 =

Area or perimeter?

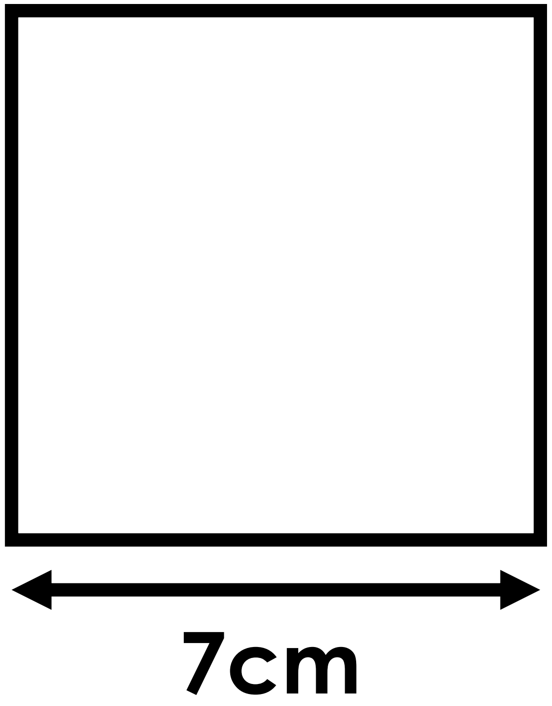
Area and Perimeter

Build 1



Area: 7cm × 7cm =

Perimeter: 7cm × 4 =

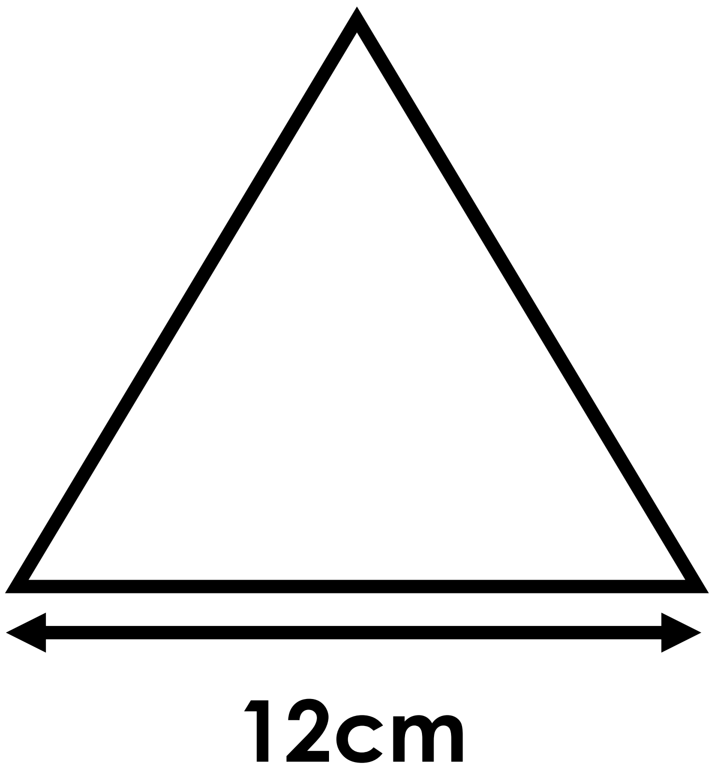


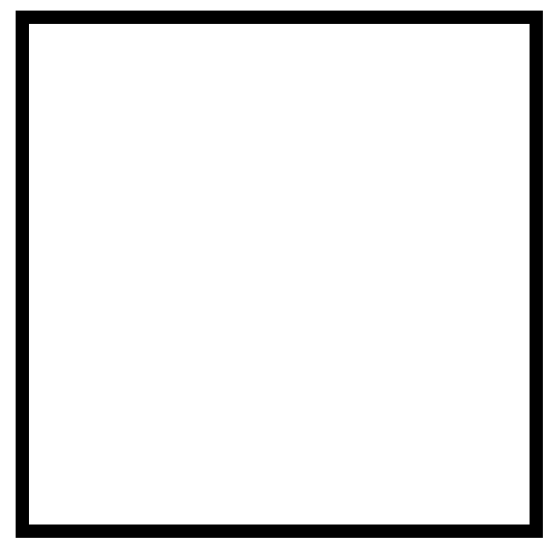
Area: 7cm × 7cm = 49cm^2

Perimeter: 7cm × 4 = 28cm

The equilateral triangle and the square have the same

What could the information be?

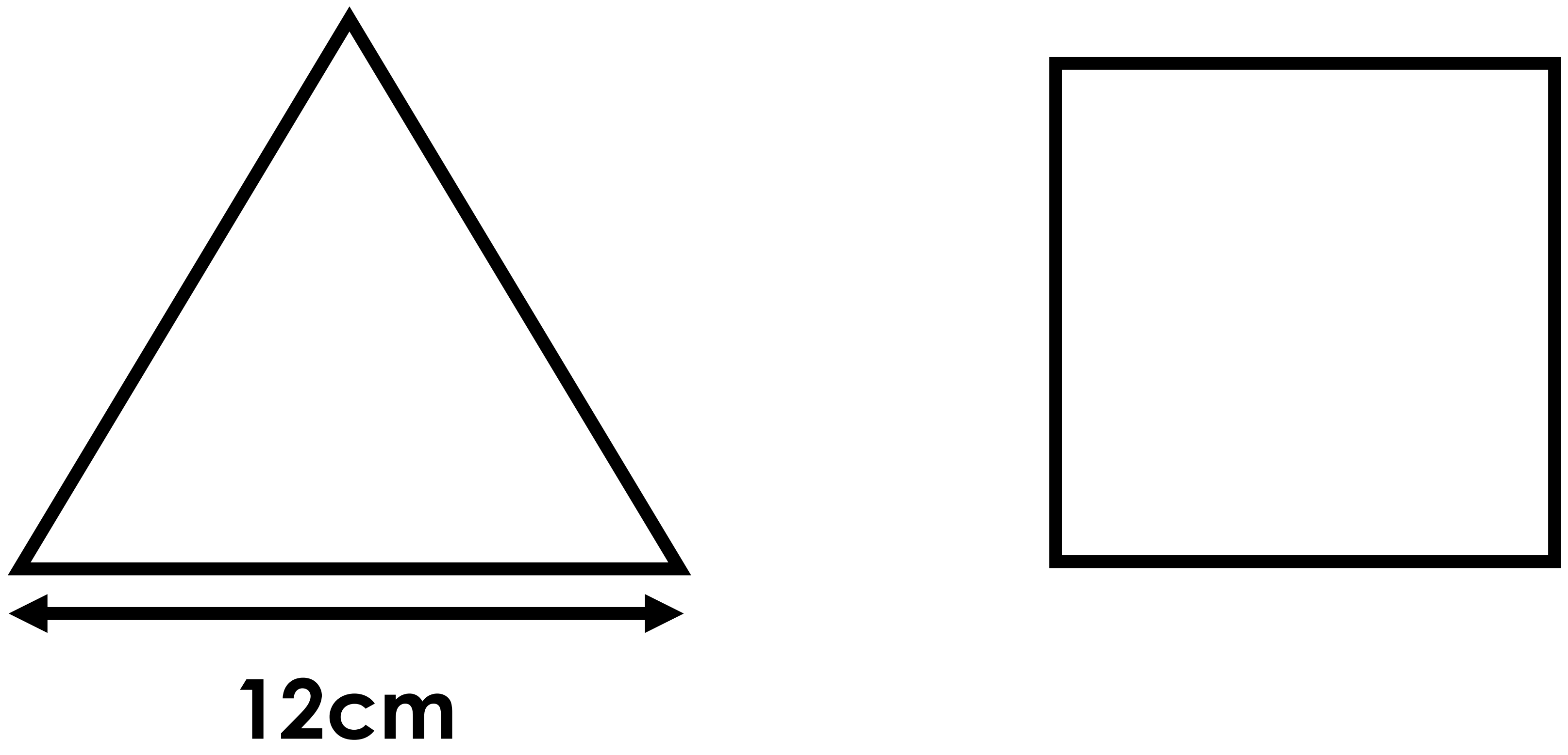




What could the question be?

What is the

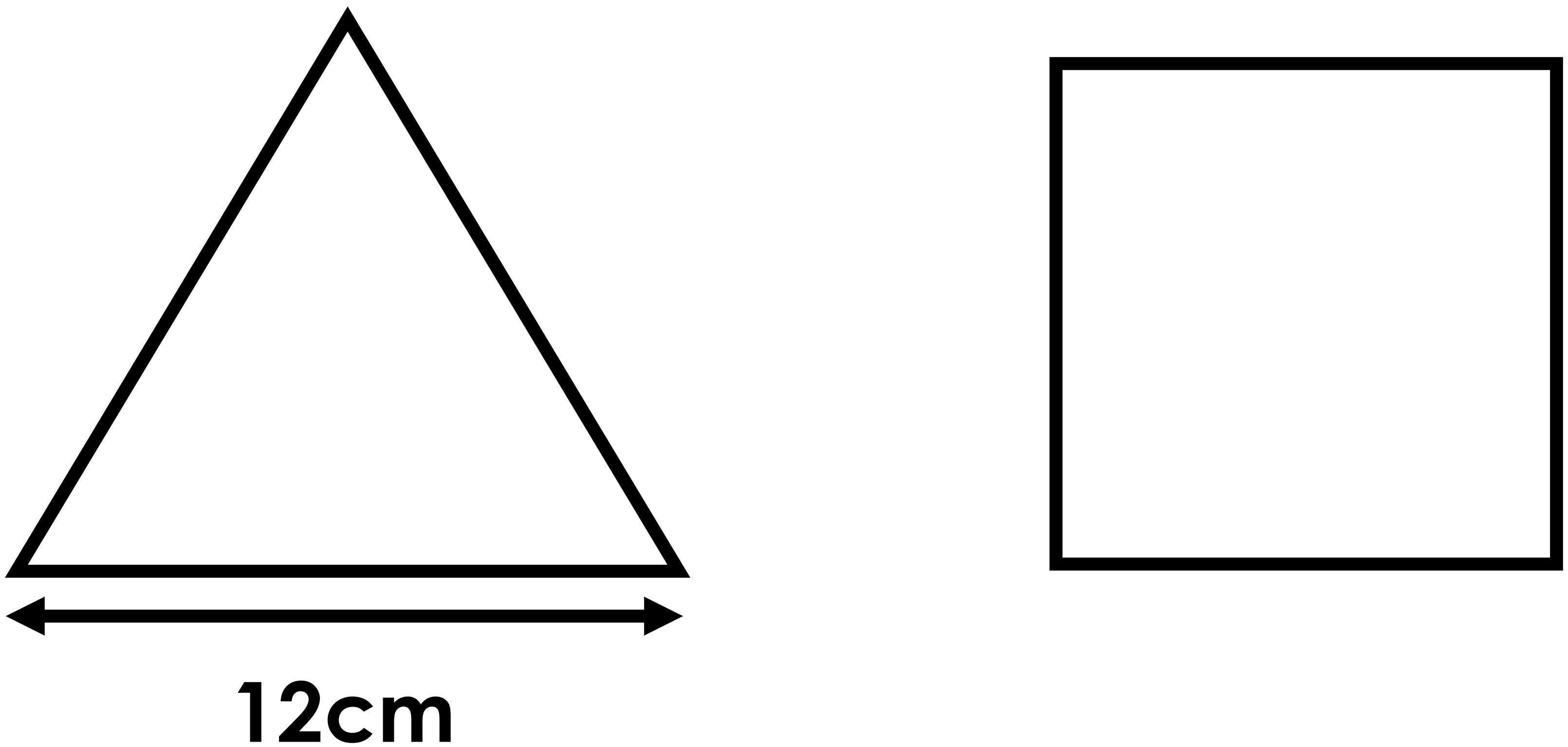
The equilateral triangle and the square have the same perimeter.



What could the question be?

What is the

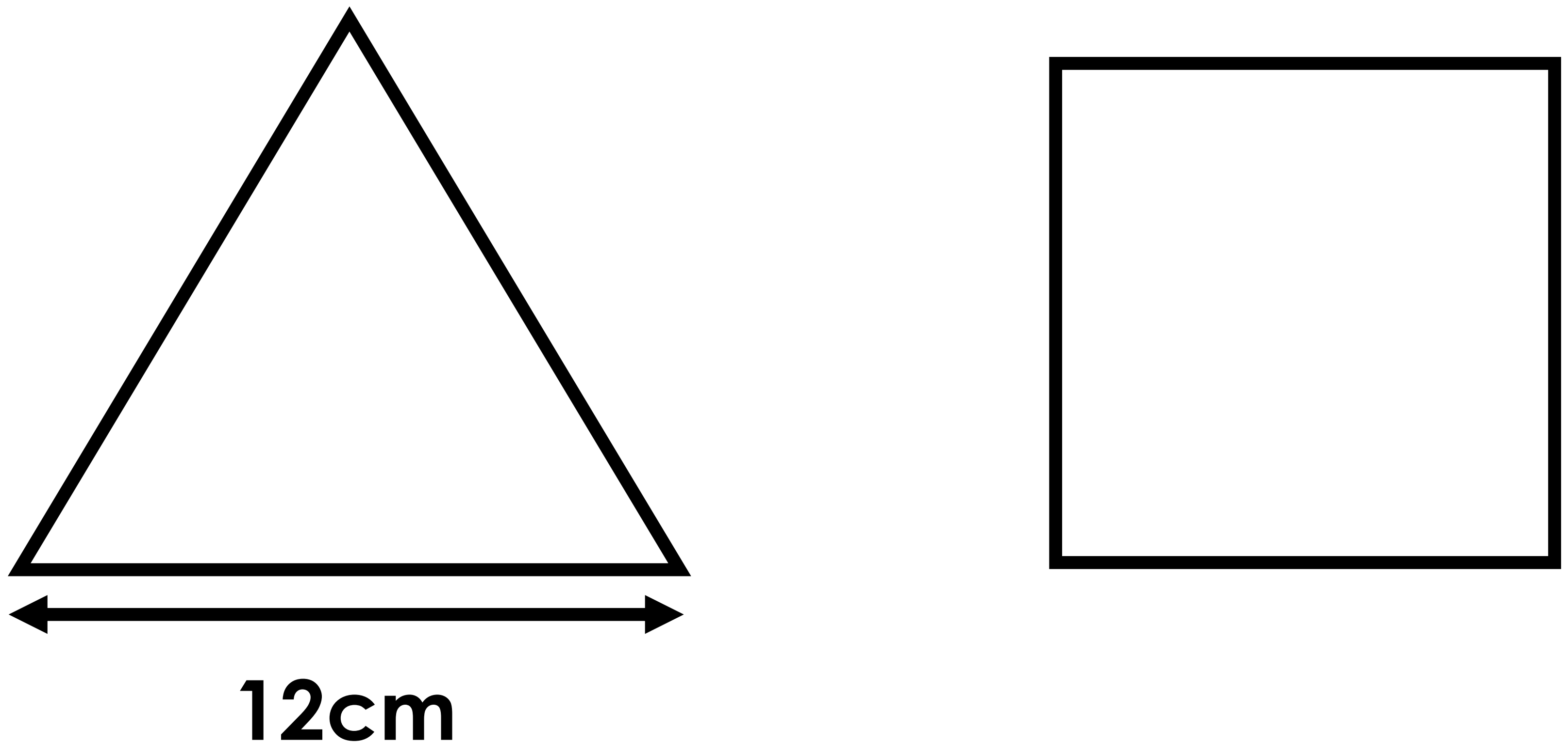
The equilateral triangle and the square have the same perimeter.



What is the area of the square?

The equilateral triangle and the square have the same perimeter.

Perimeter = 36cm



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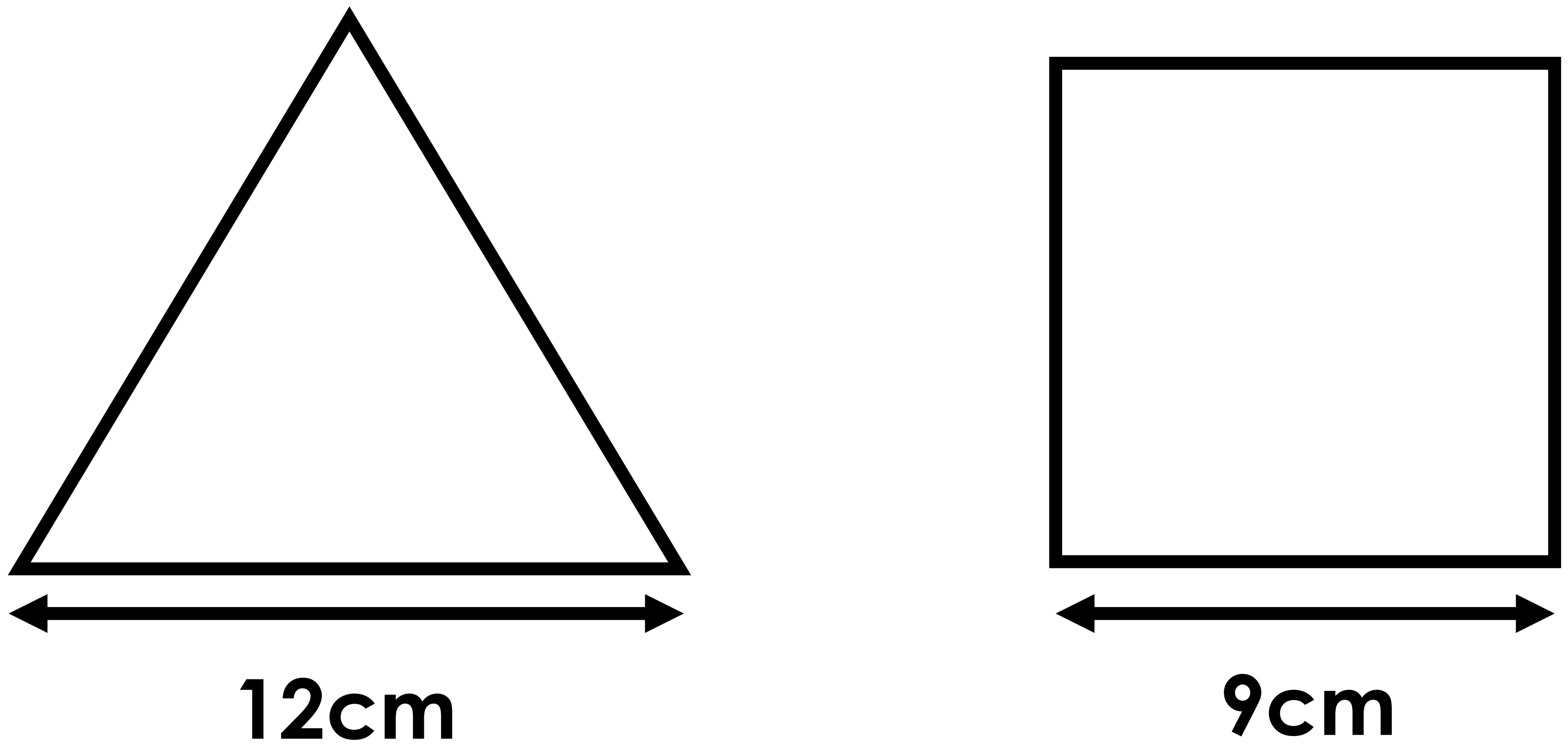

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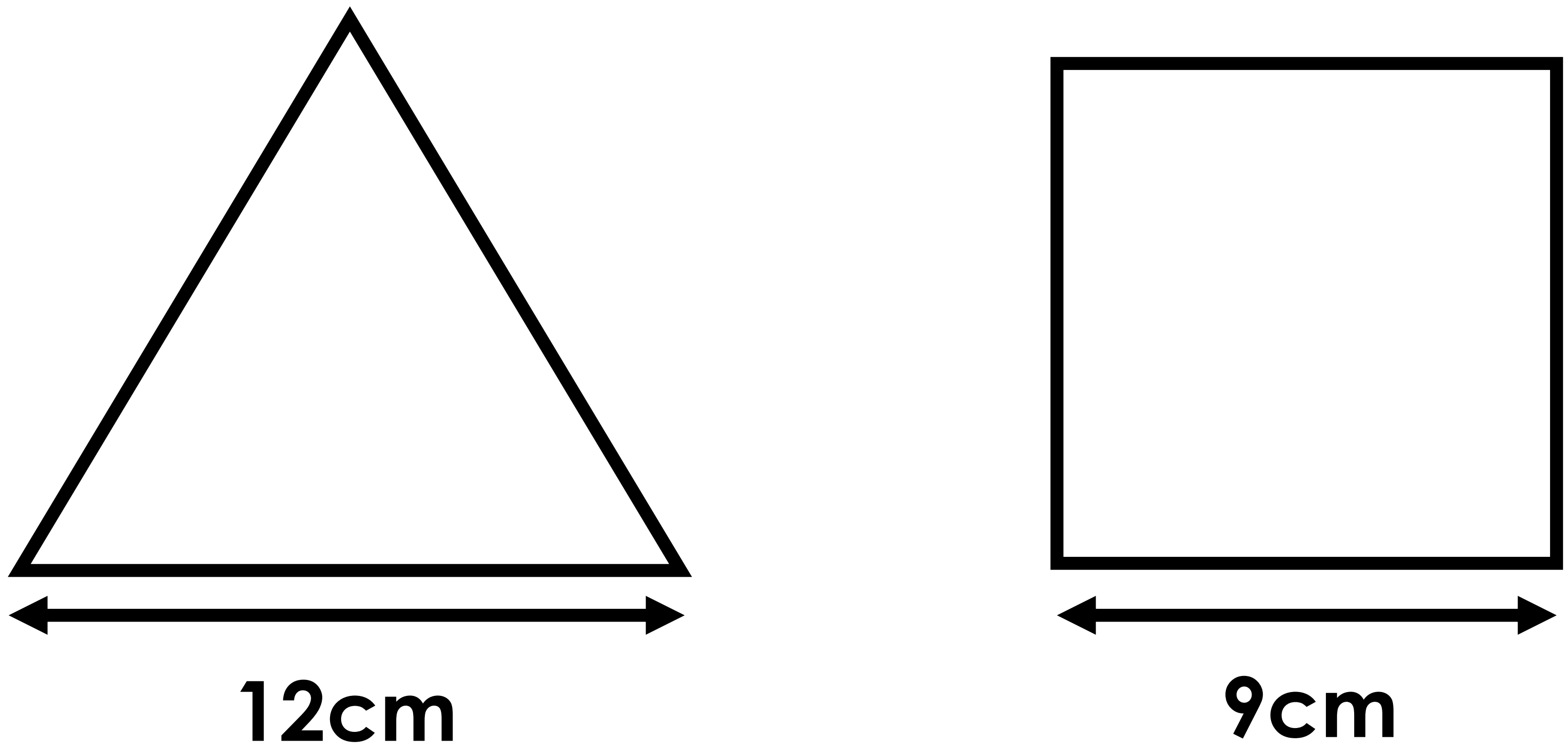
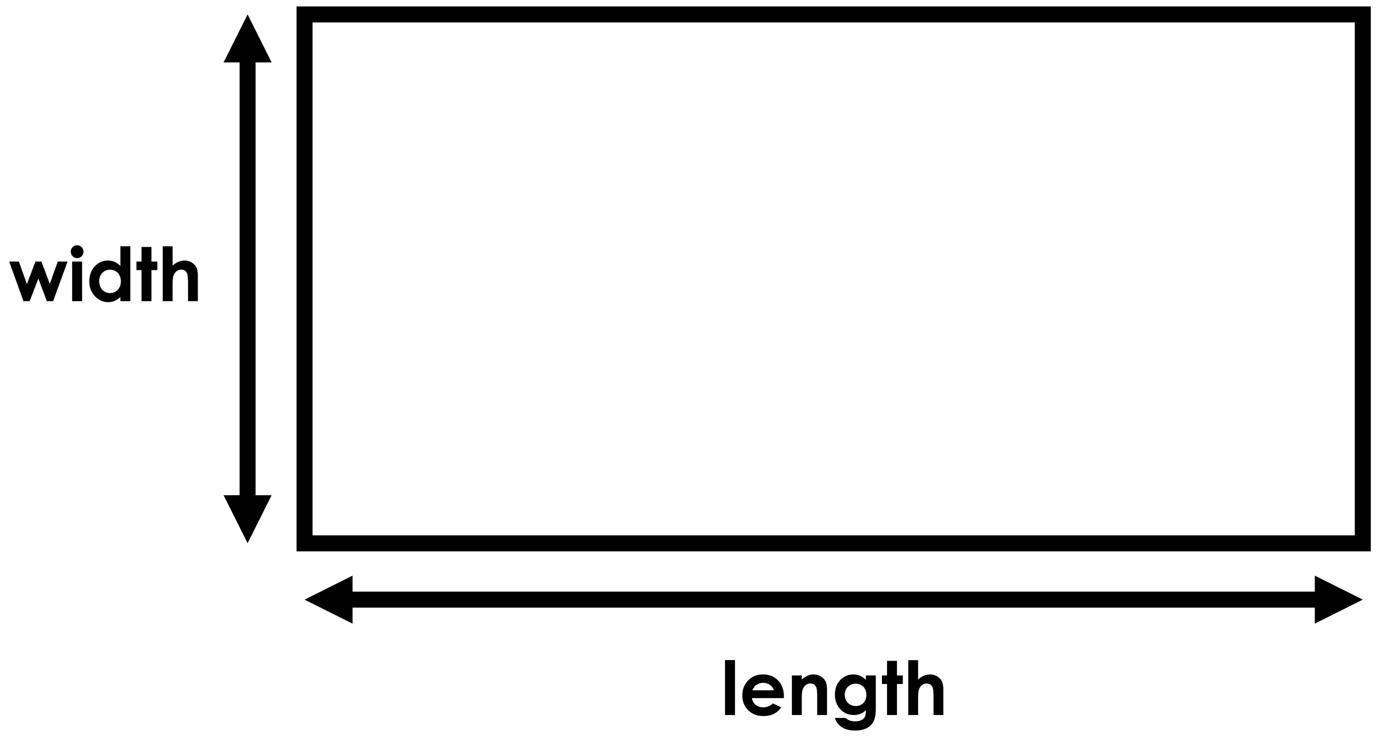


Area = 81cm²

What is the area of the square?

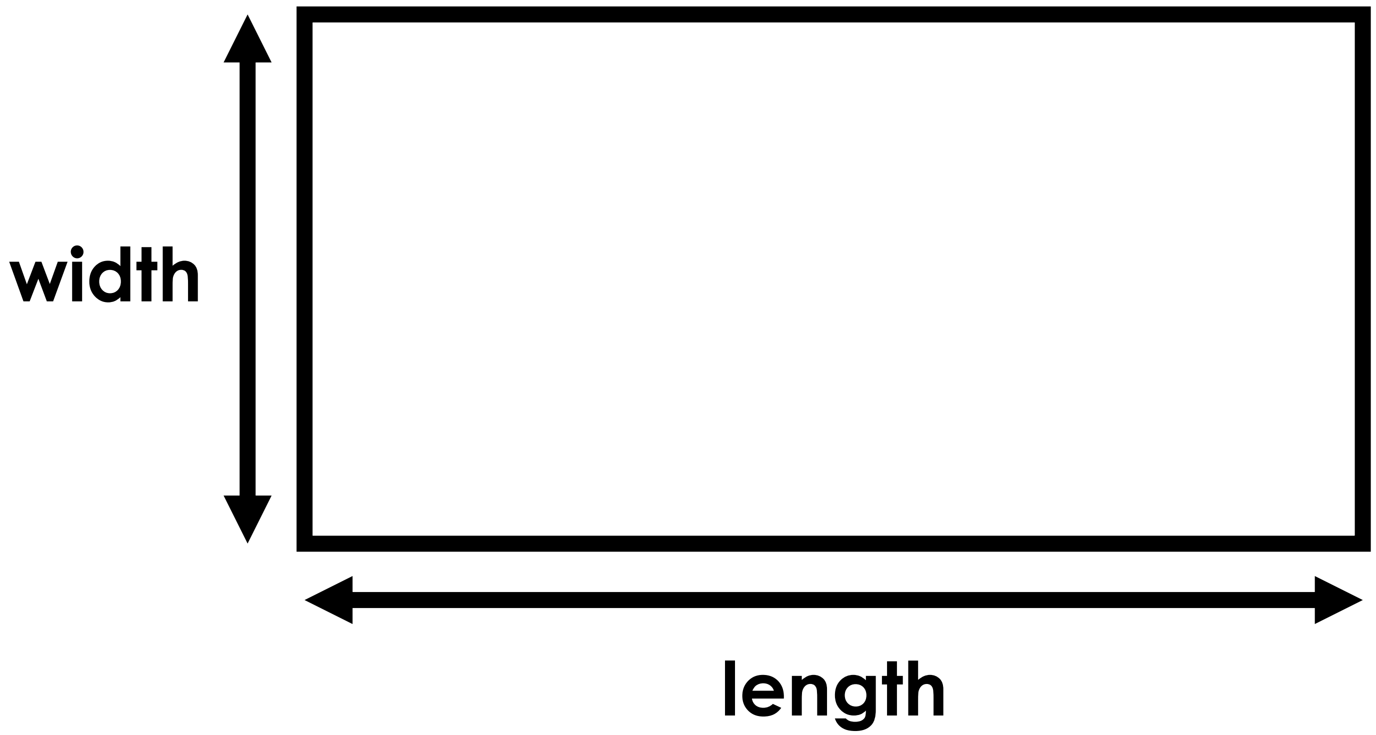
The length of the rectangle is double its width.



The length of the rectangle is double its width.

The area of the rectangle is ☐ **cm²**

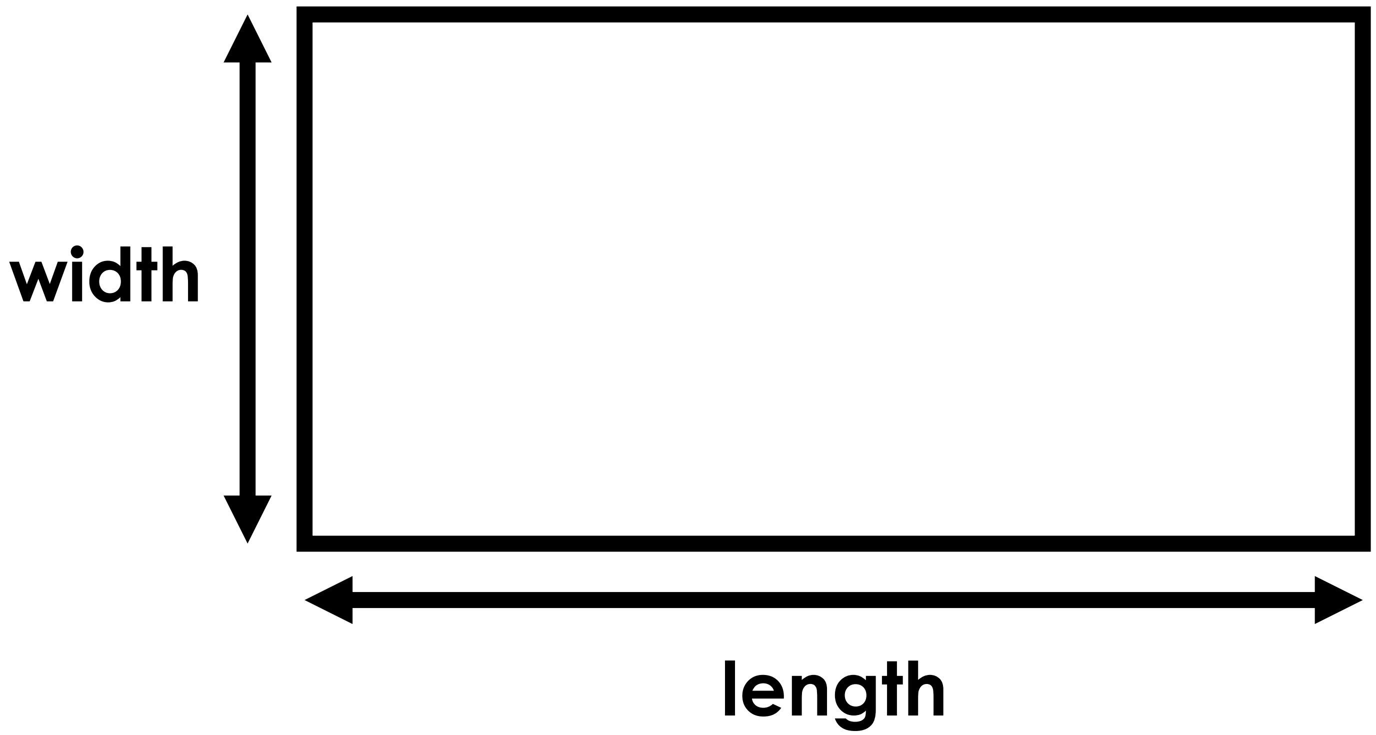
Give a possible area



What is the perimeter of the rectangle?

The length of the rectangle is double its width.

The area of the rectangle is **72cm²**



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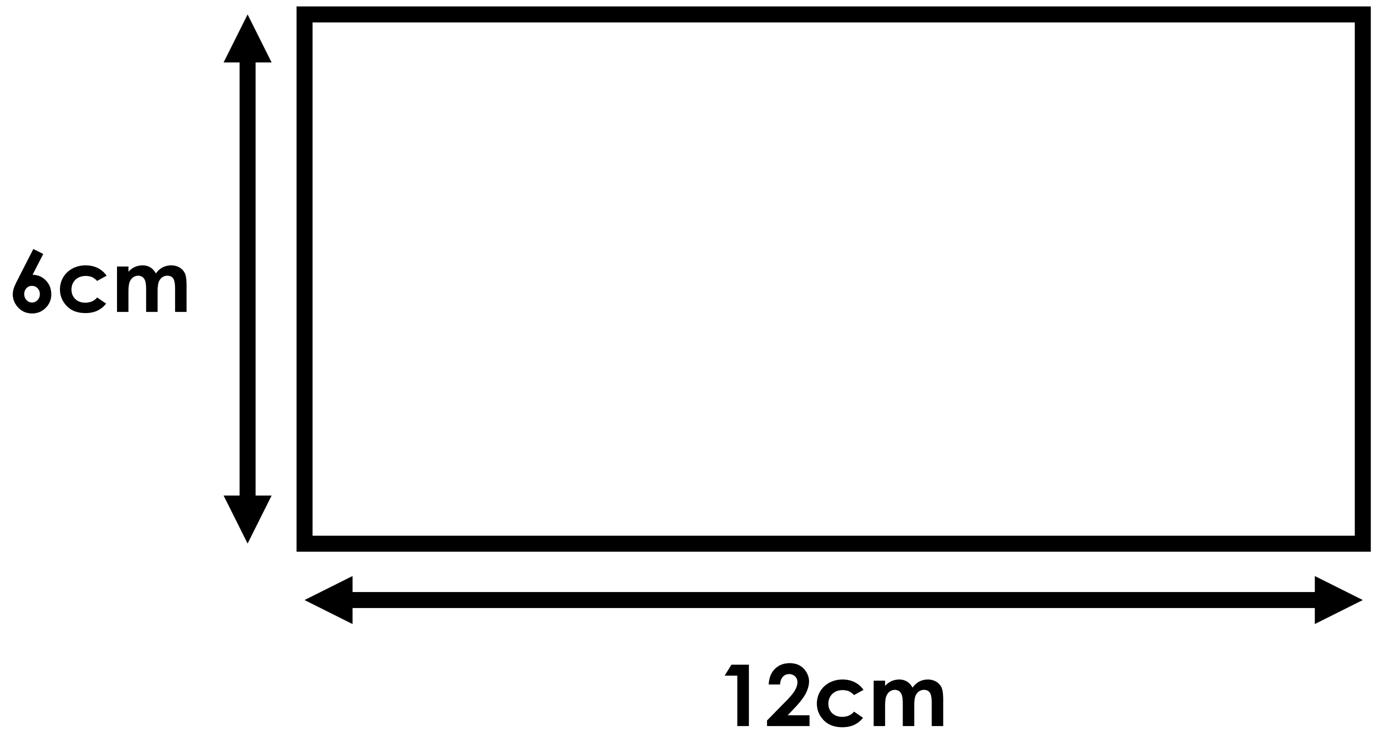
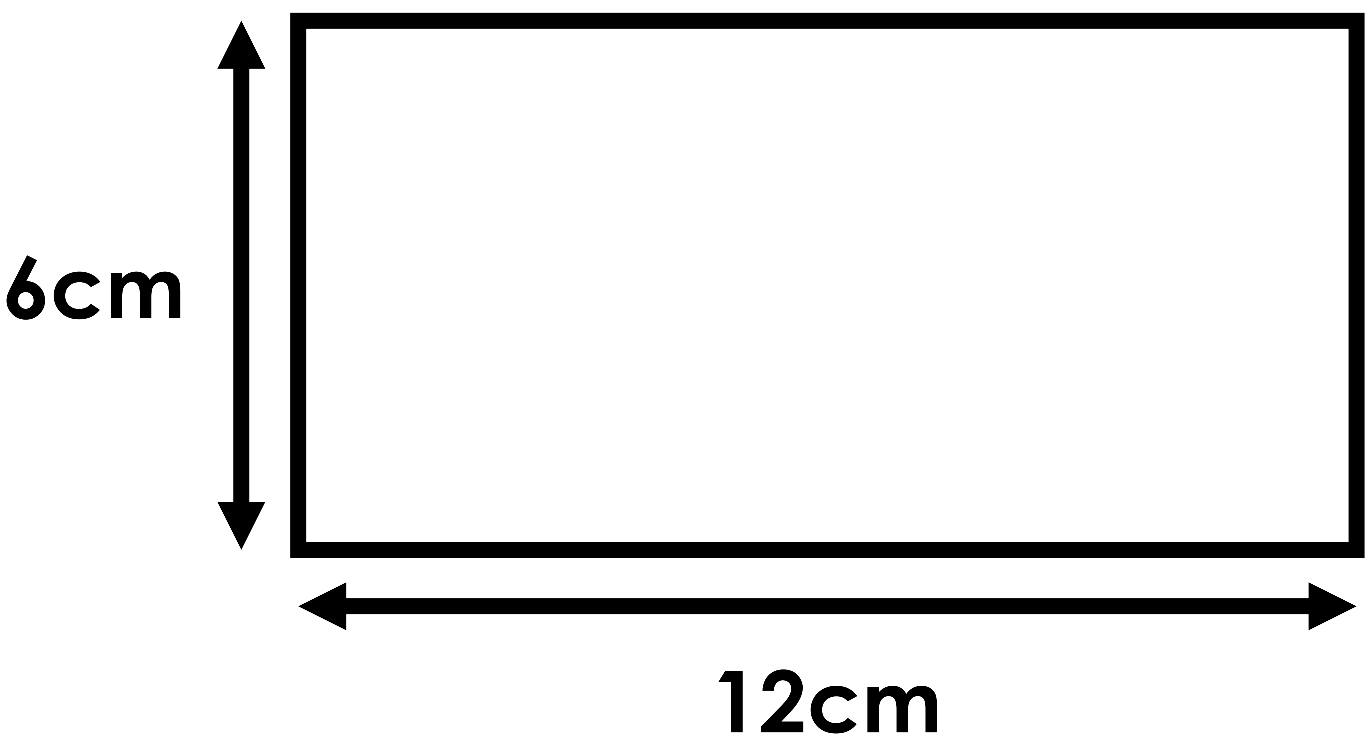


6cm × 12cm = 72cm²

What is the perimeter of the rectangle?

The length of the rectangle is double its width.

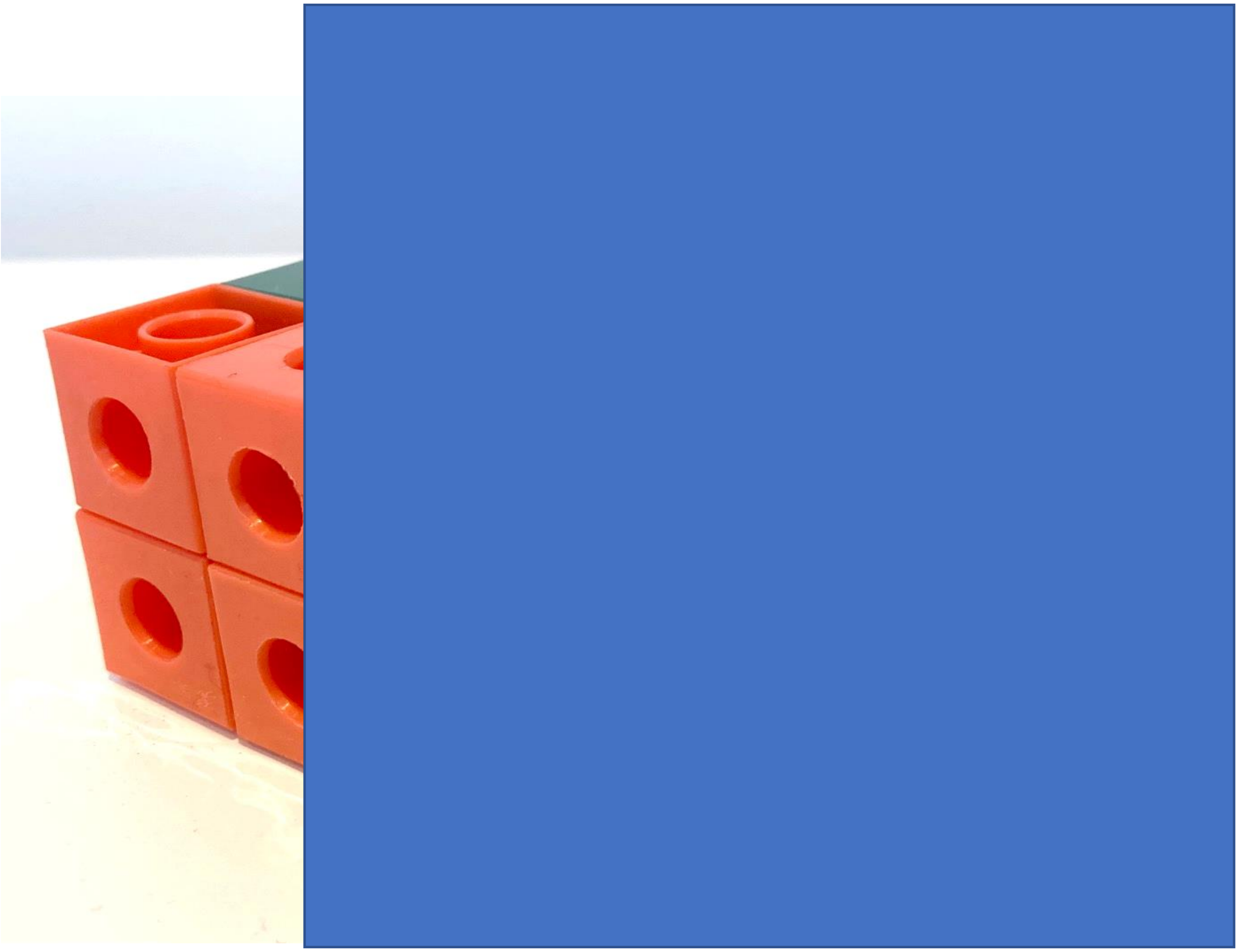
The area of the rectangle is **72cm²**



Perimeter:

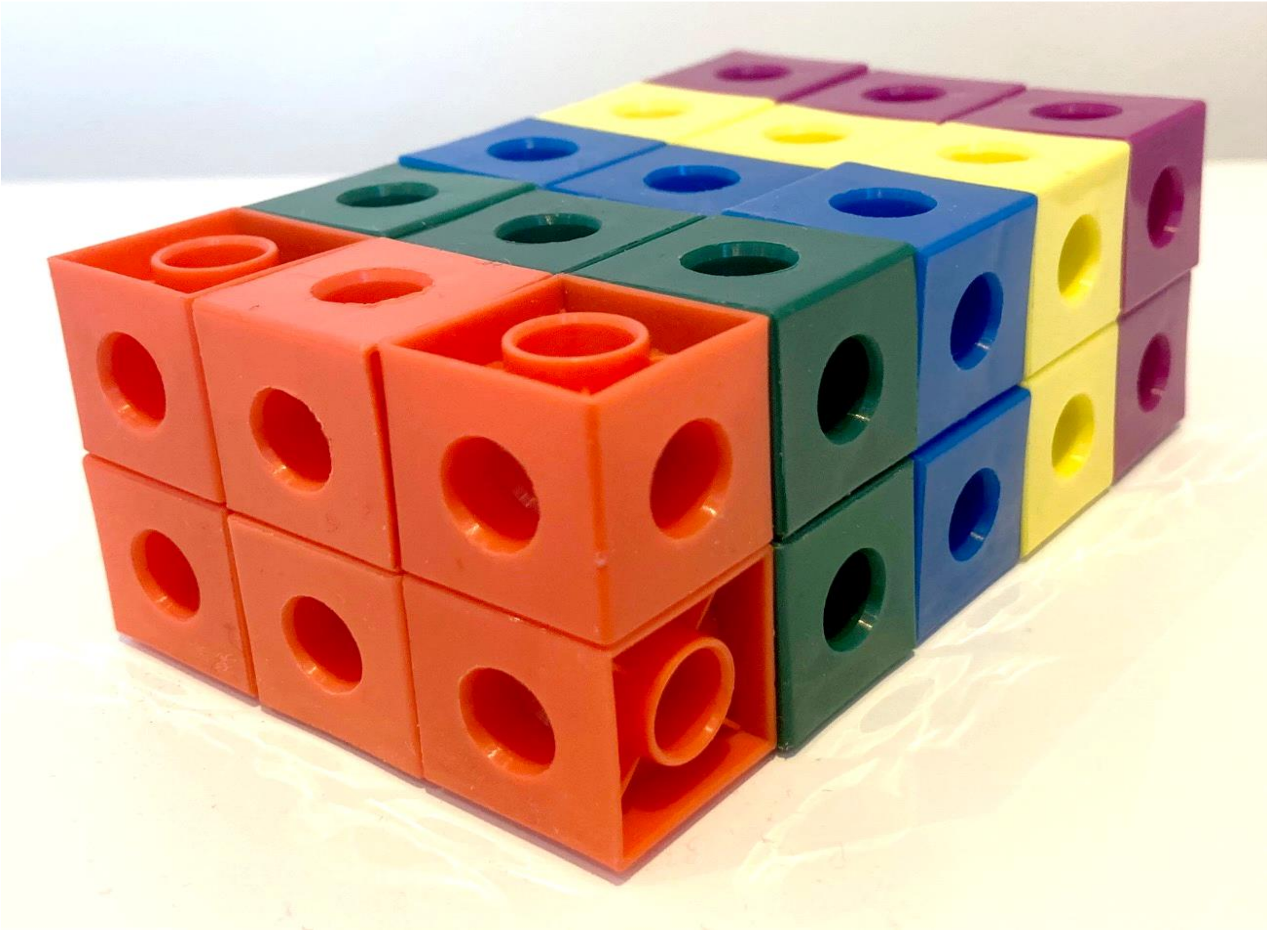
(12cm + 6cm) × 2
= 36cm

What is the perimeter of the rectangle?



The cuboid is made using **30 cubes.**

What are the dimensions of the cuboid?



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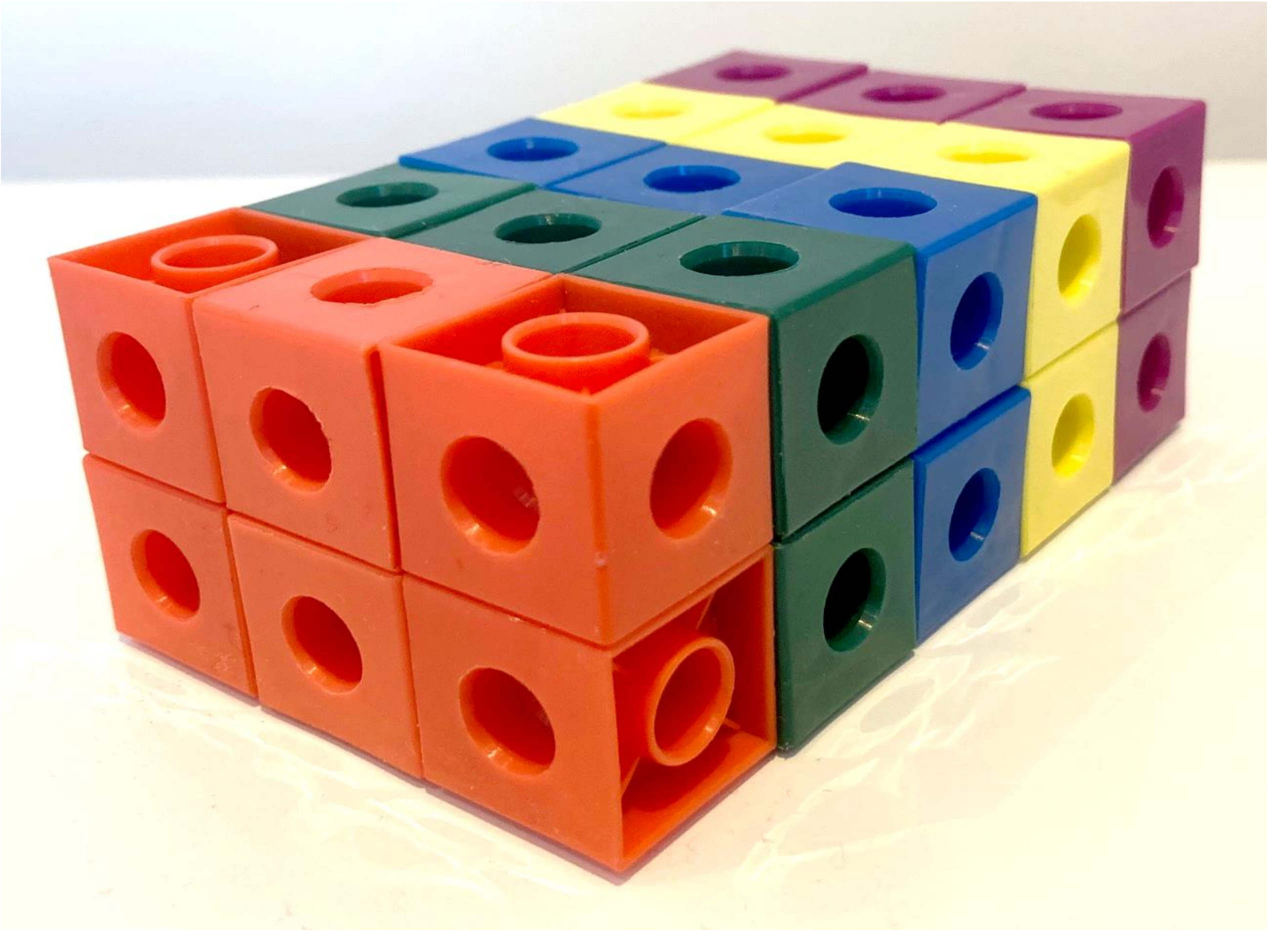
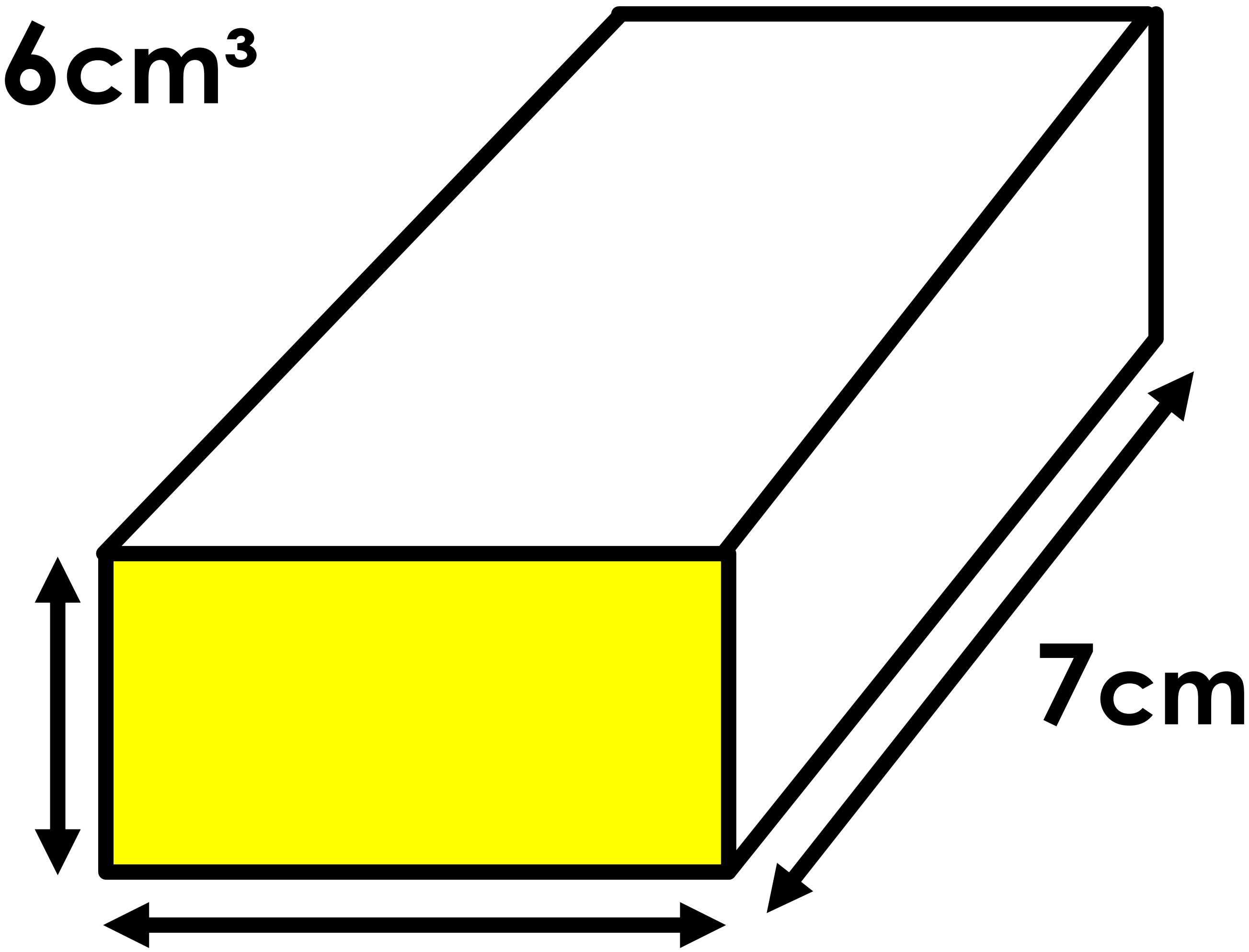


The cuboid is made using **30 cubes.**

What are the dimensions of the cuboid?

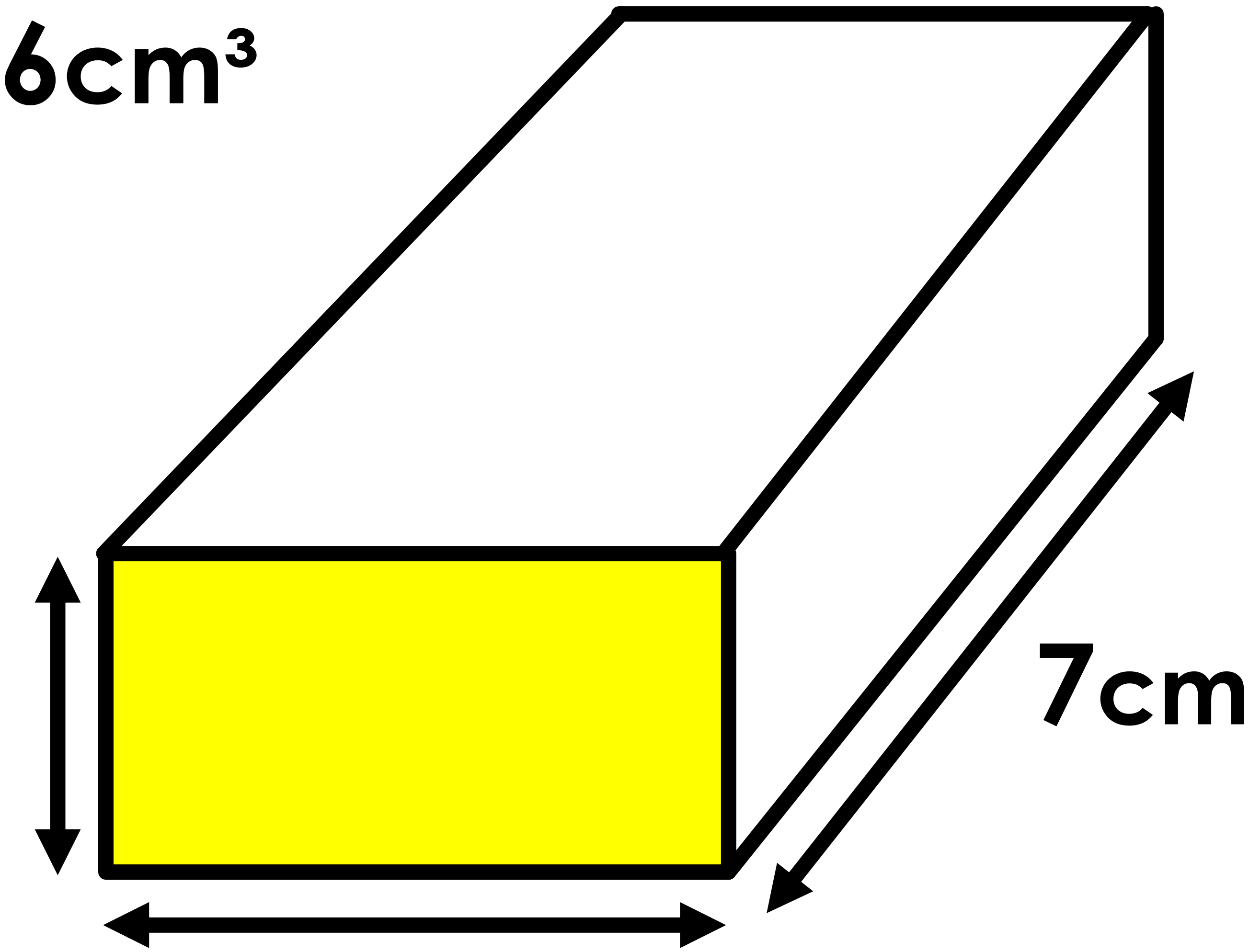
$$\underbrace{2 \times 3 \times 5}_{\text{dimensions}} = 30$$

Cuboid volume: 56cm³



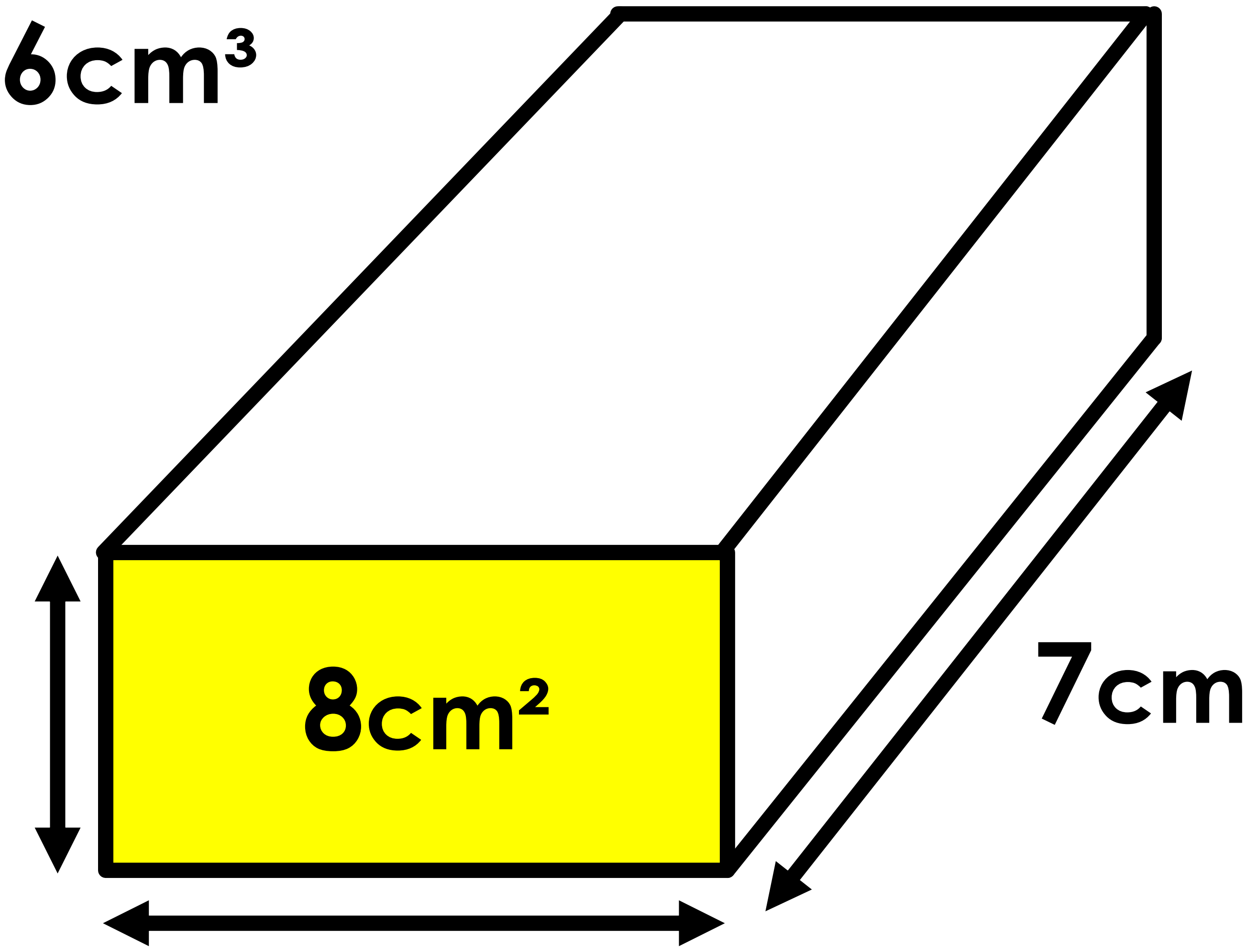
What could the question be?

Cuboid volume: 56cm³



What is the area of the yellow rectangular face?

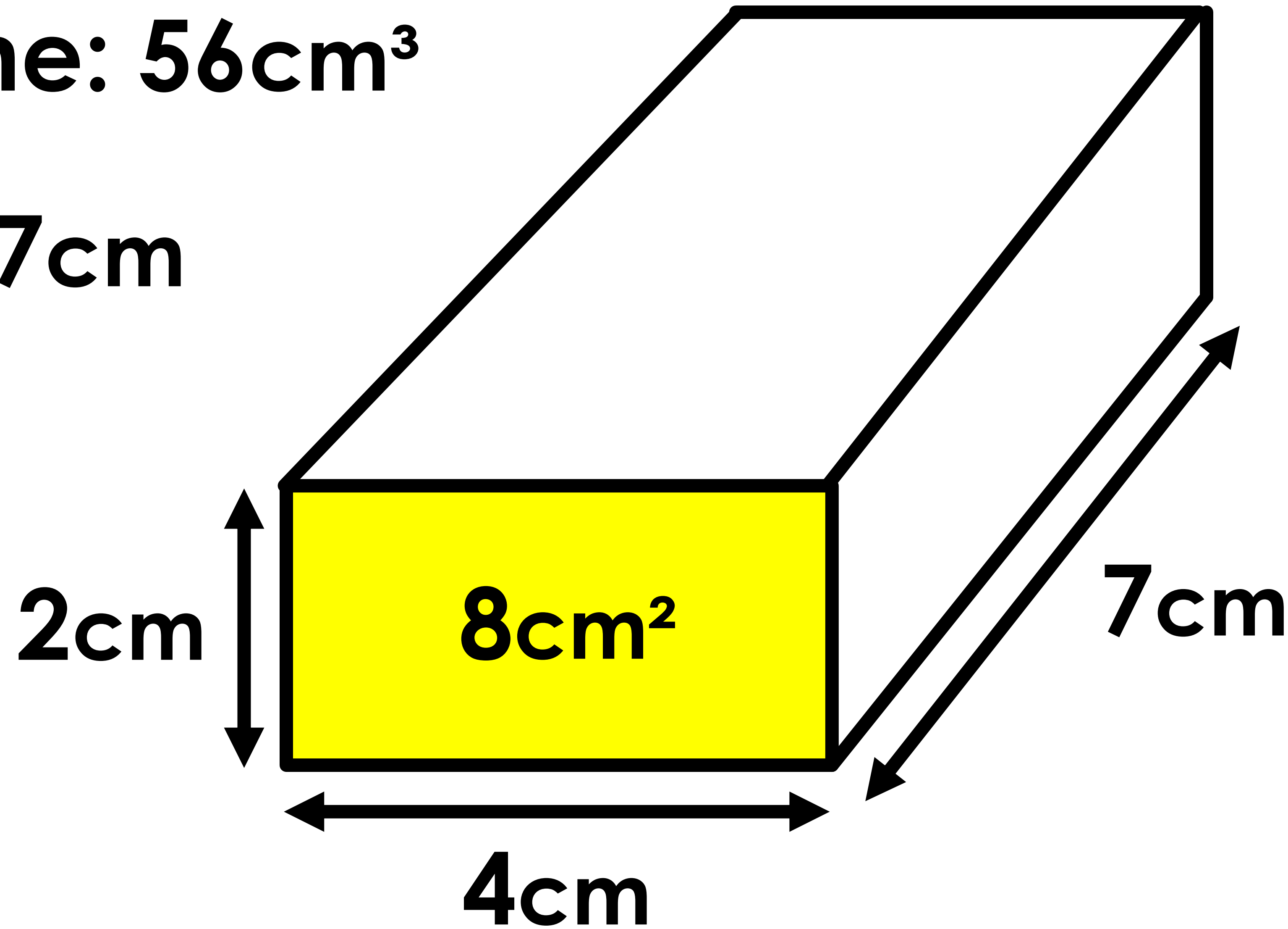
Cuboid volume: $56cm^3$



What is the area of the yellow rectangular face?

Cuboid volume: $56cm^3$

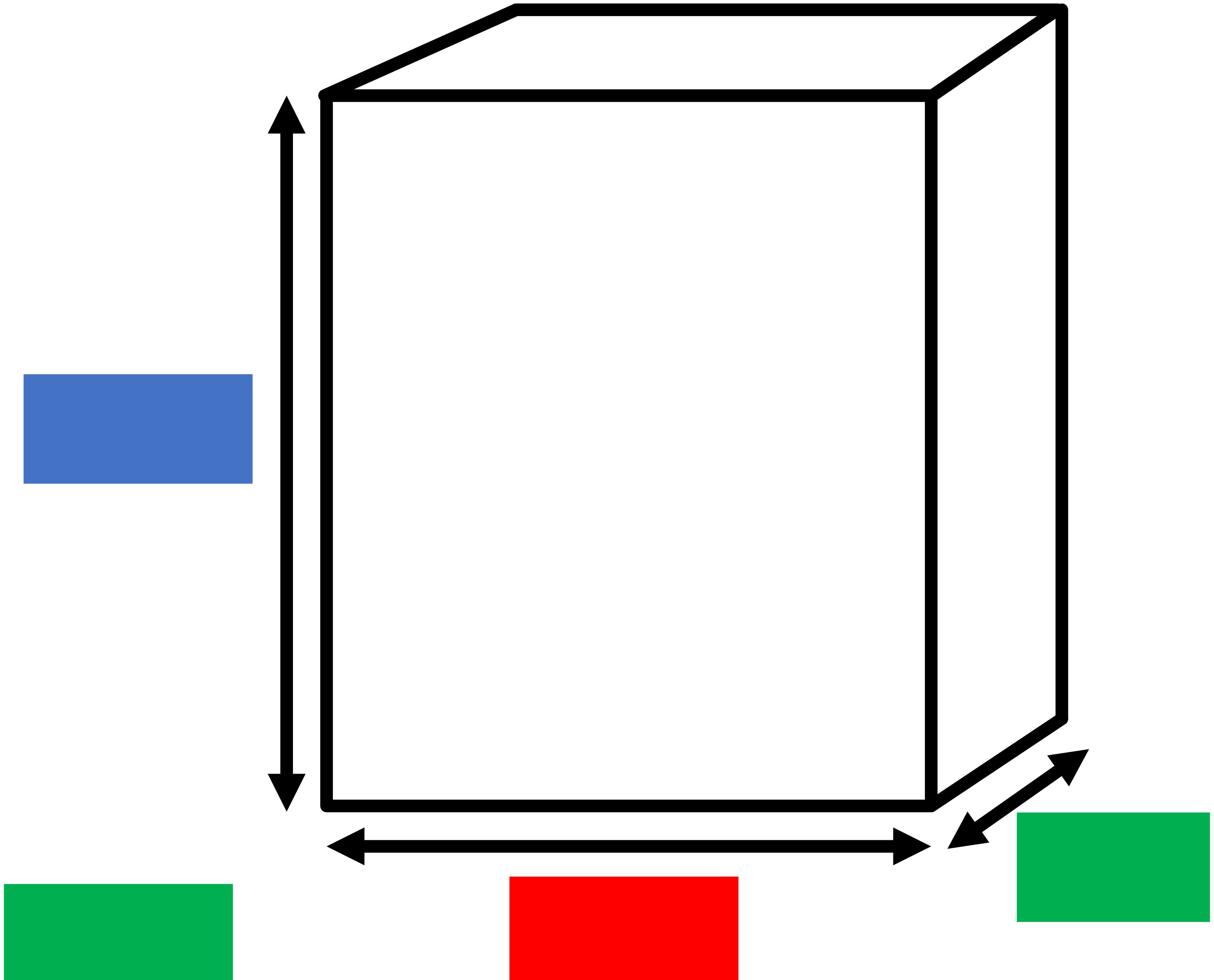
$2cm \times 4cm \times 7cm$
$= 56cm^3$



What is the area of the yellow rectangular face?

The volume of the cuboid is **240cm^3**

What could the dimensions be?

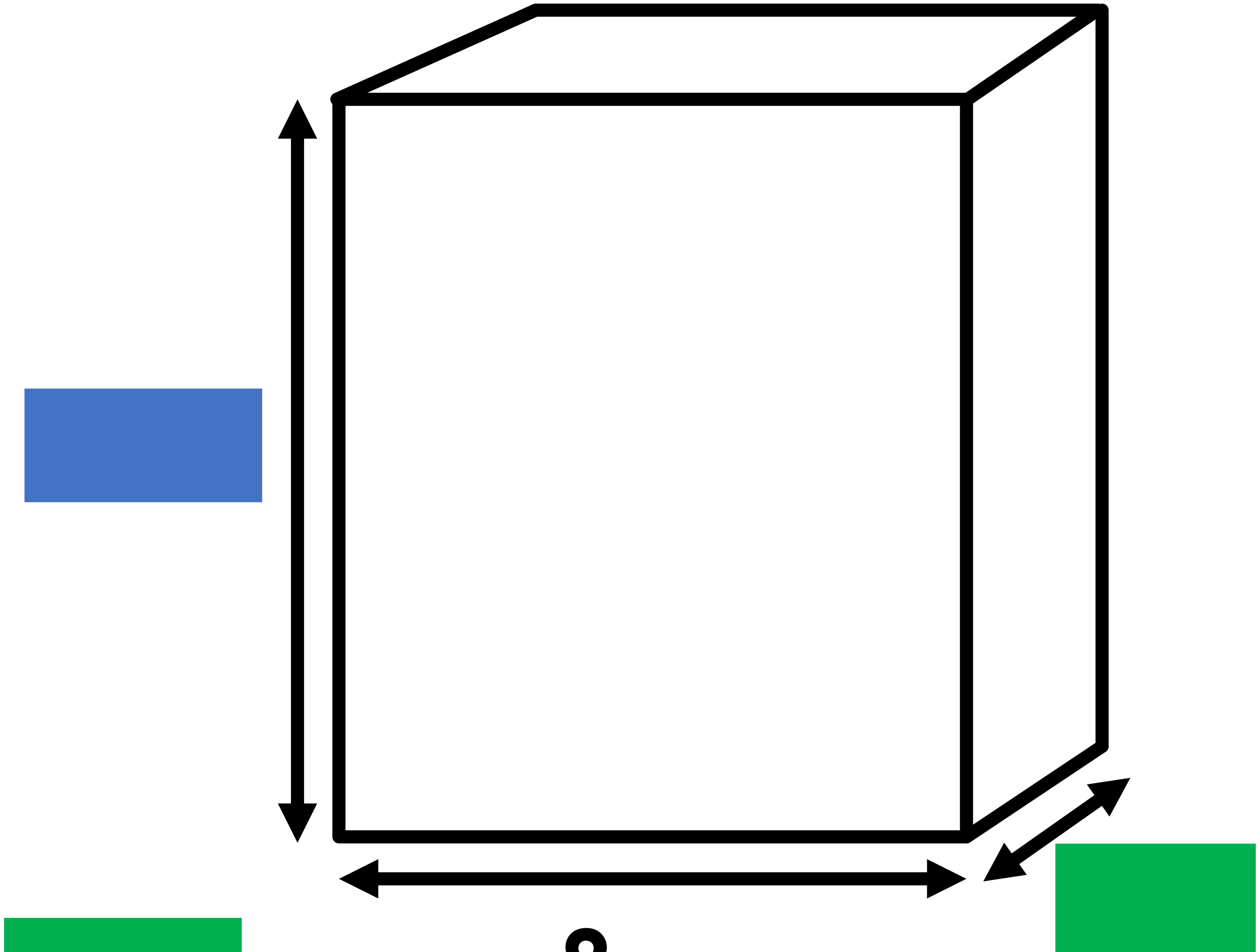


× ×

= 240cm^3

The volume of the cuboid is **240cm³**

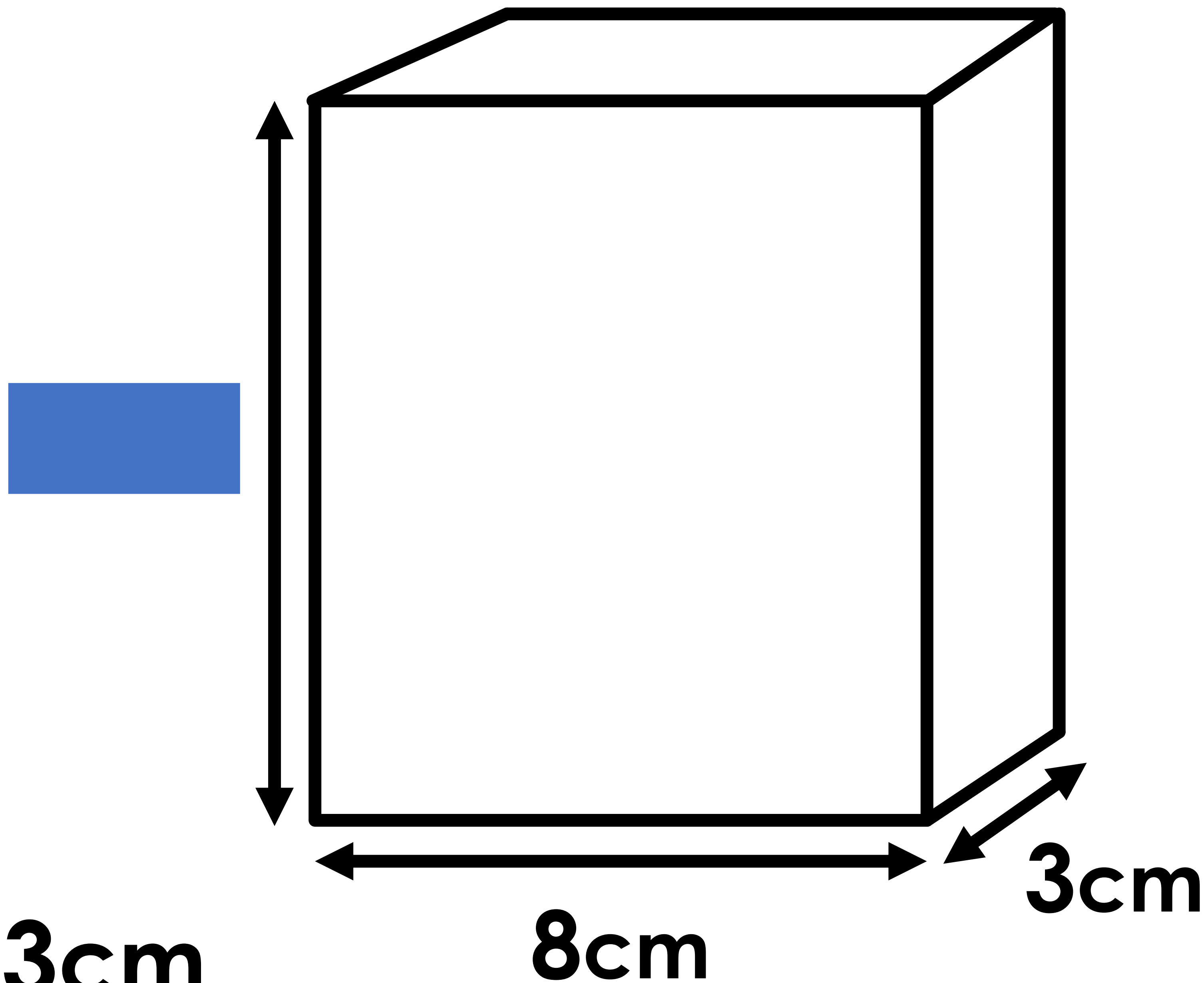
What could the dimensions be?



[ ] × 8cm × [ ] = $240cm^3$

The volume of the cuboid is **240cm³**

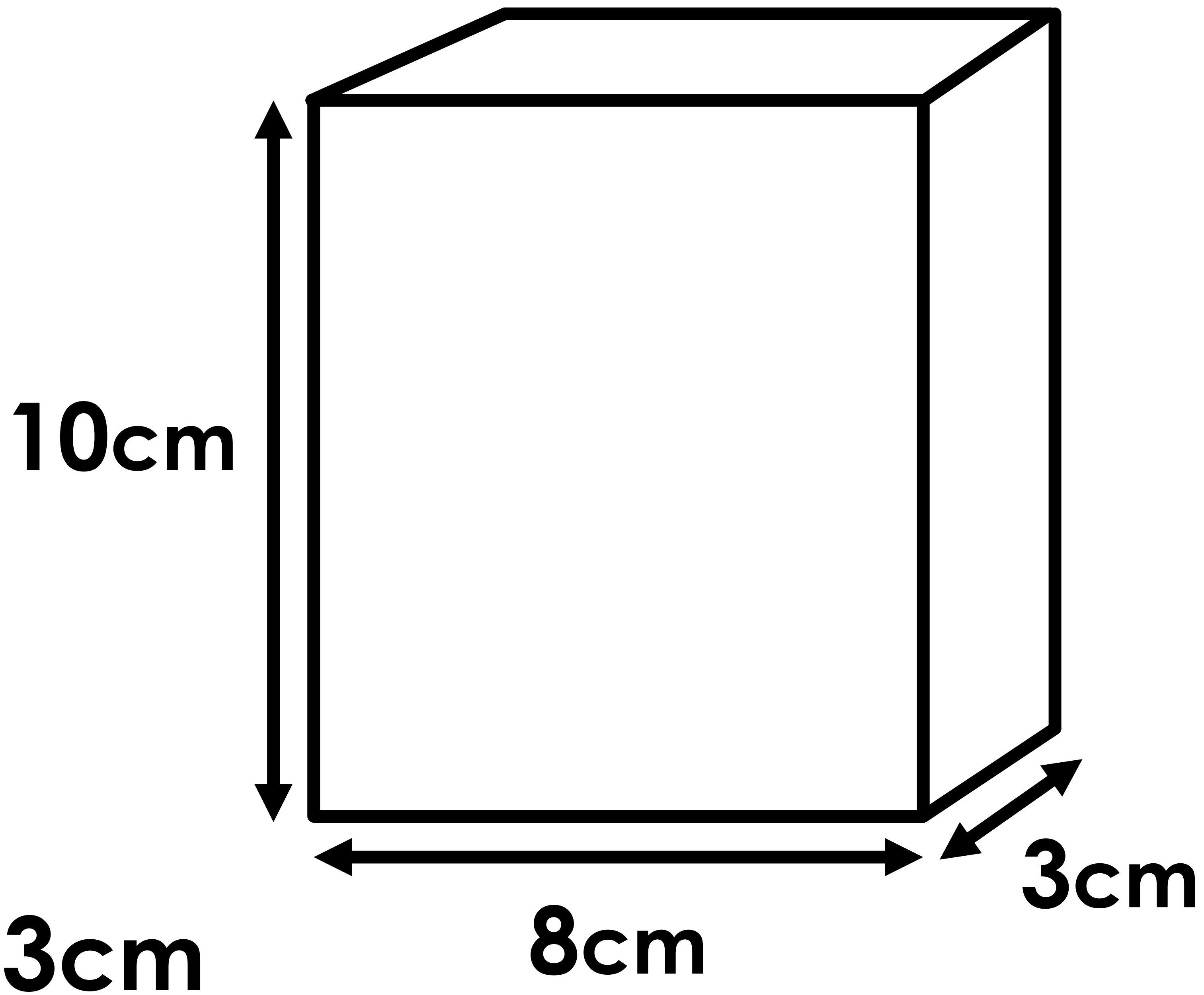
What could the dimensions be?



? × 8cm × 3cm = 240cm³

The volume of the cuboid is **240cm³**

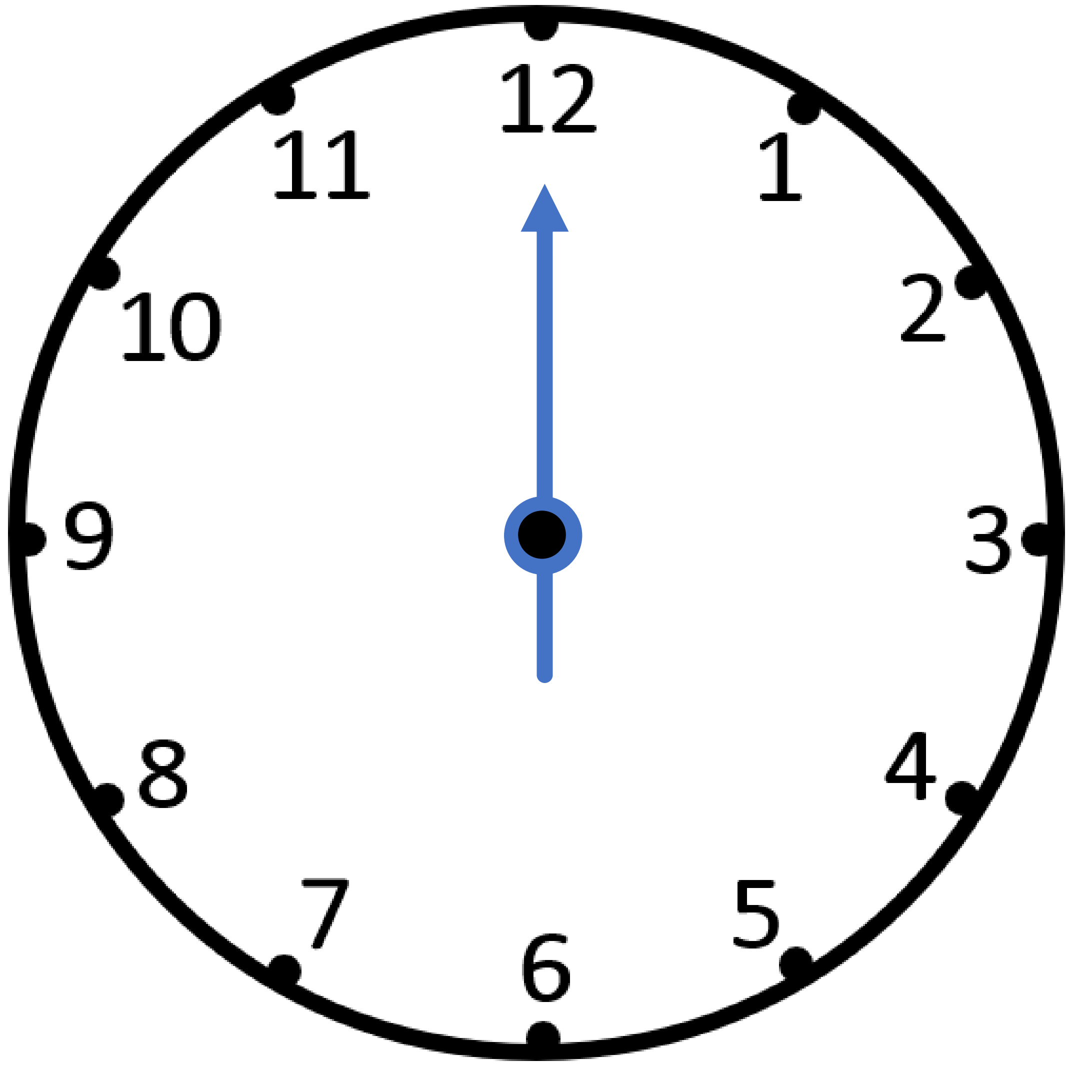
What could the dimensions be?



$10cm \times 8cm \times 3cm$
$= 240cm^3$

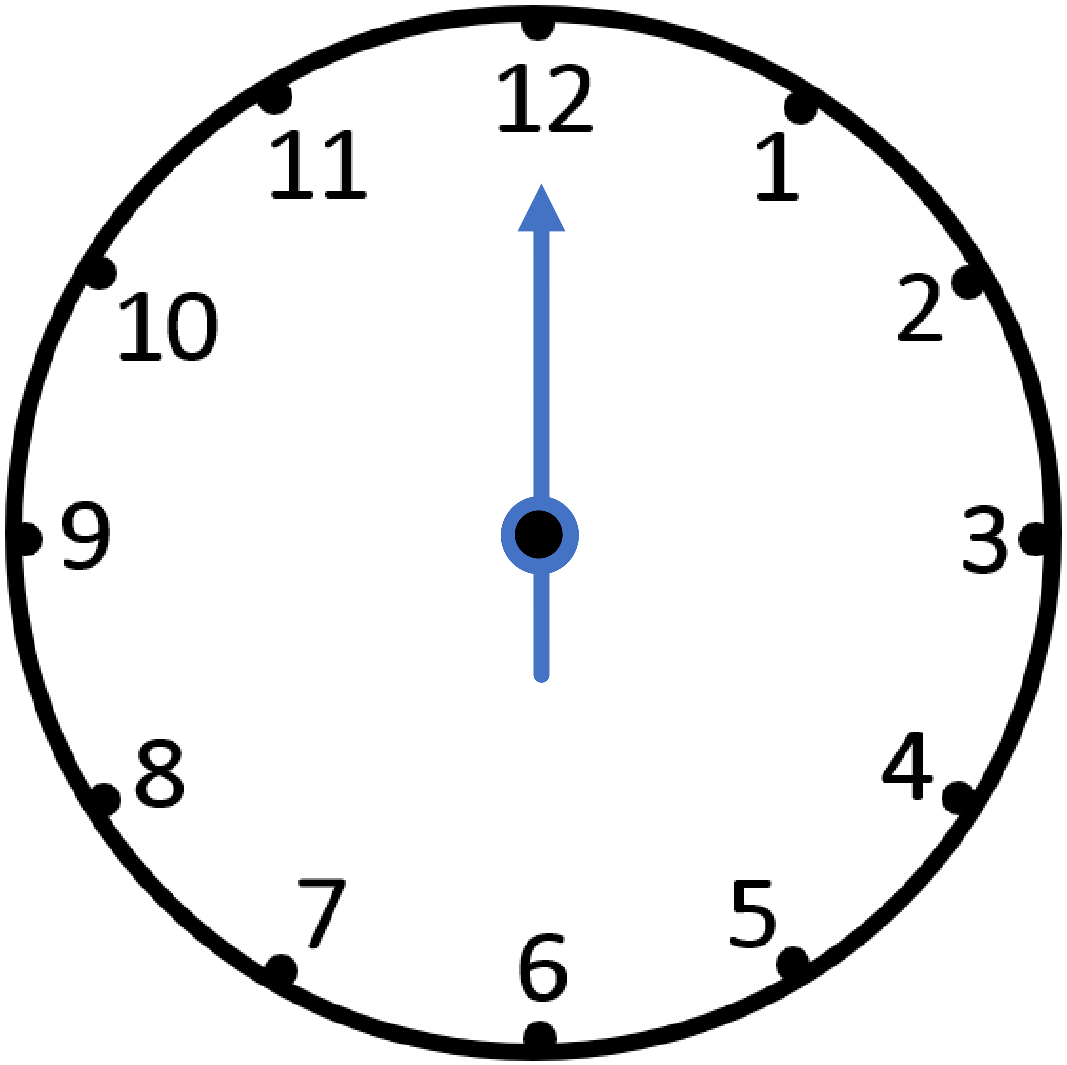
Angle and Turn

Build 1



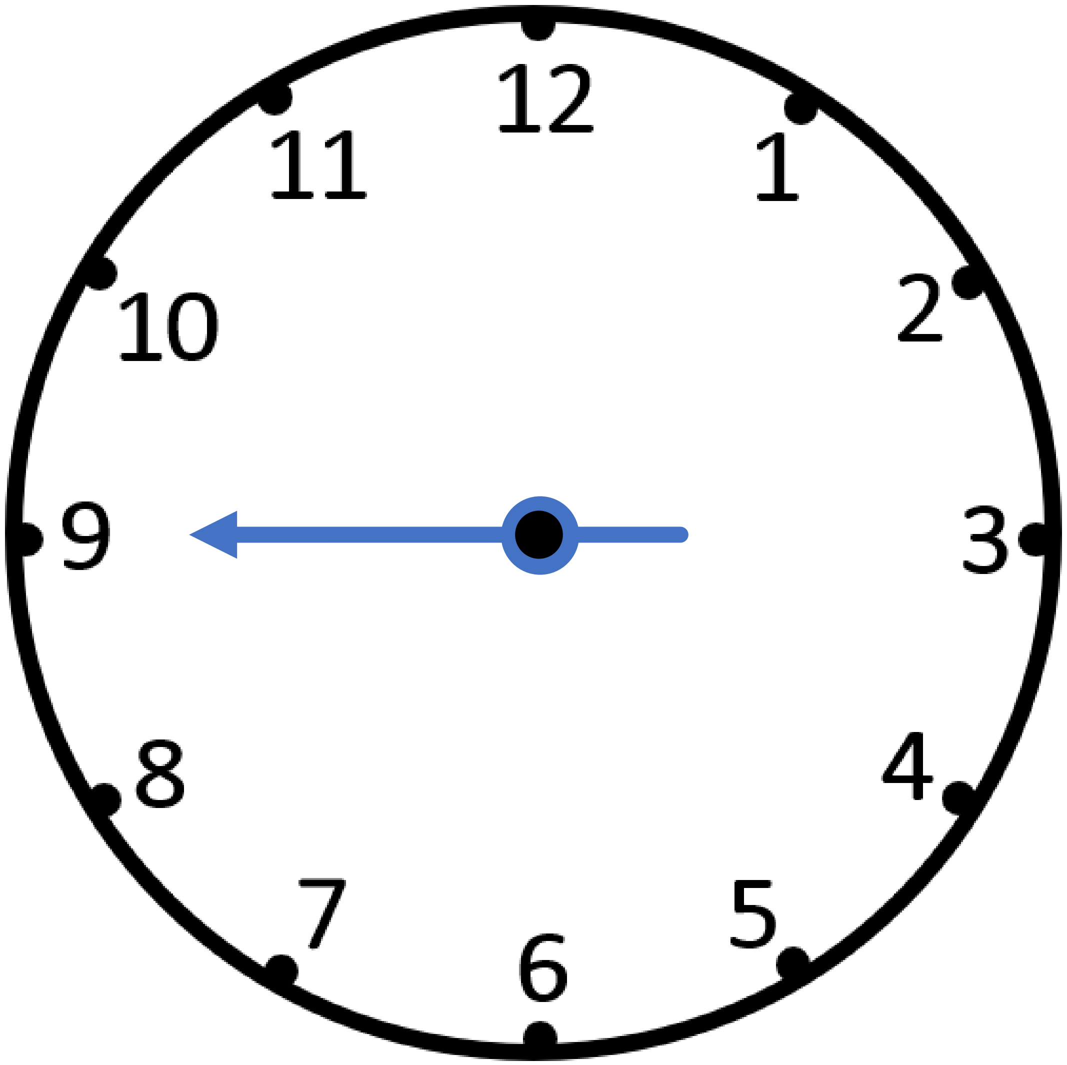
When the spinner turns

it will point at the number



When the spinner turns **270° clockwise**,

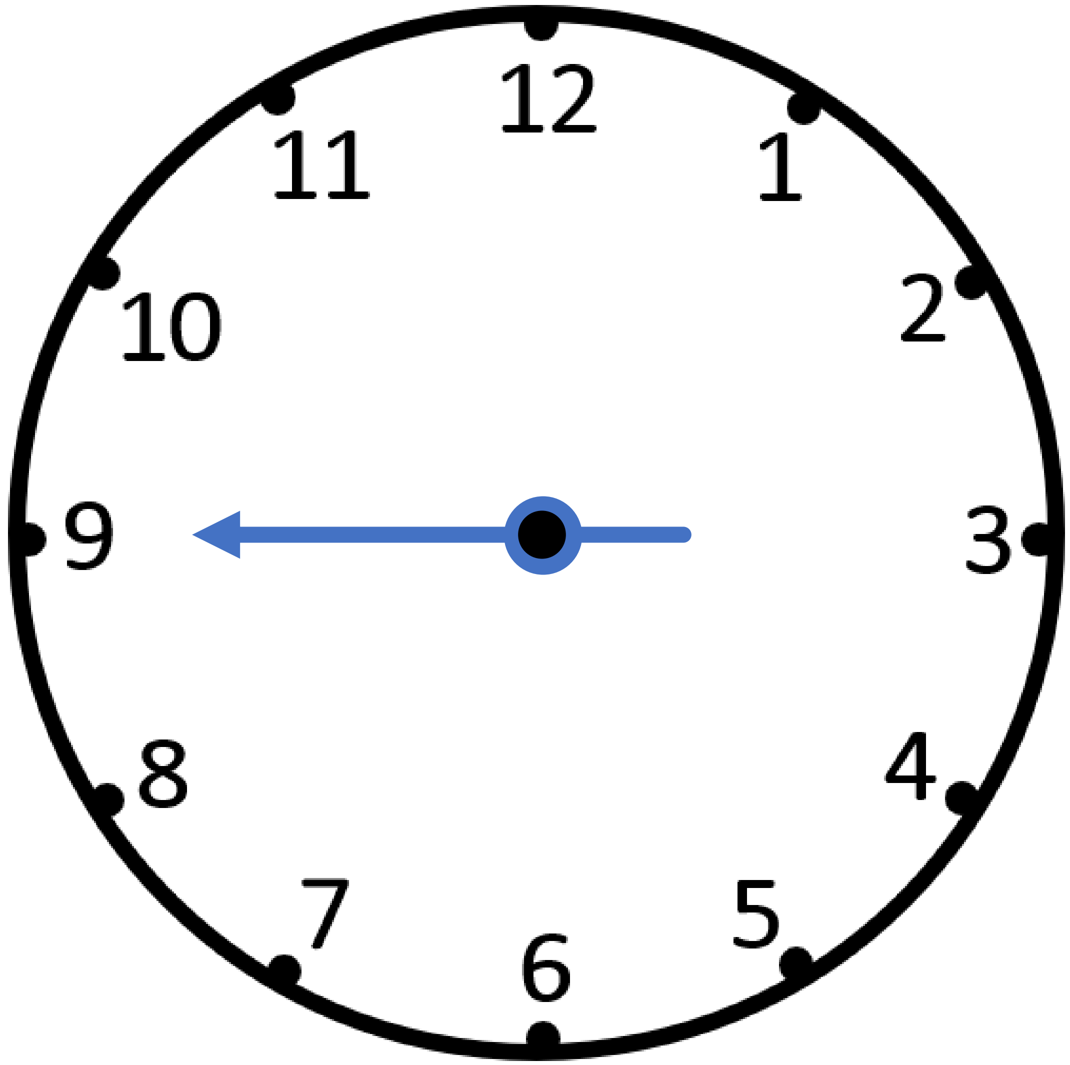
it will point at the number



When the spinner turns **270° clockwise**, it will point at the number **9**

Angle and Turn

Build 1

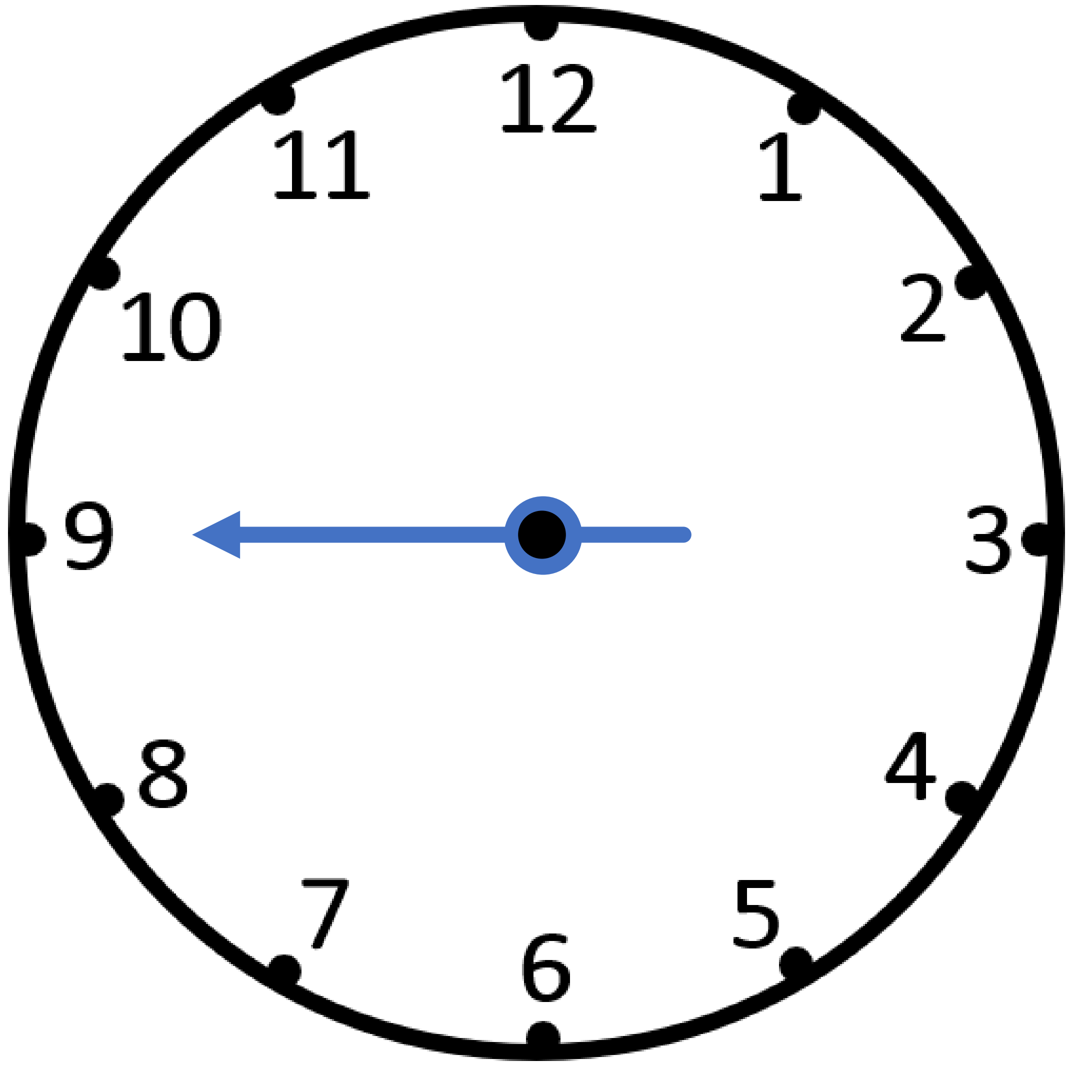


When the spinner turns

it will point at the number

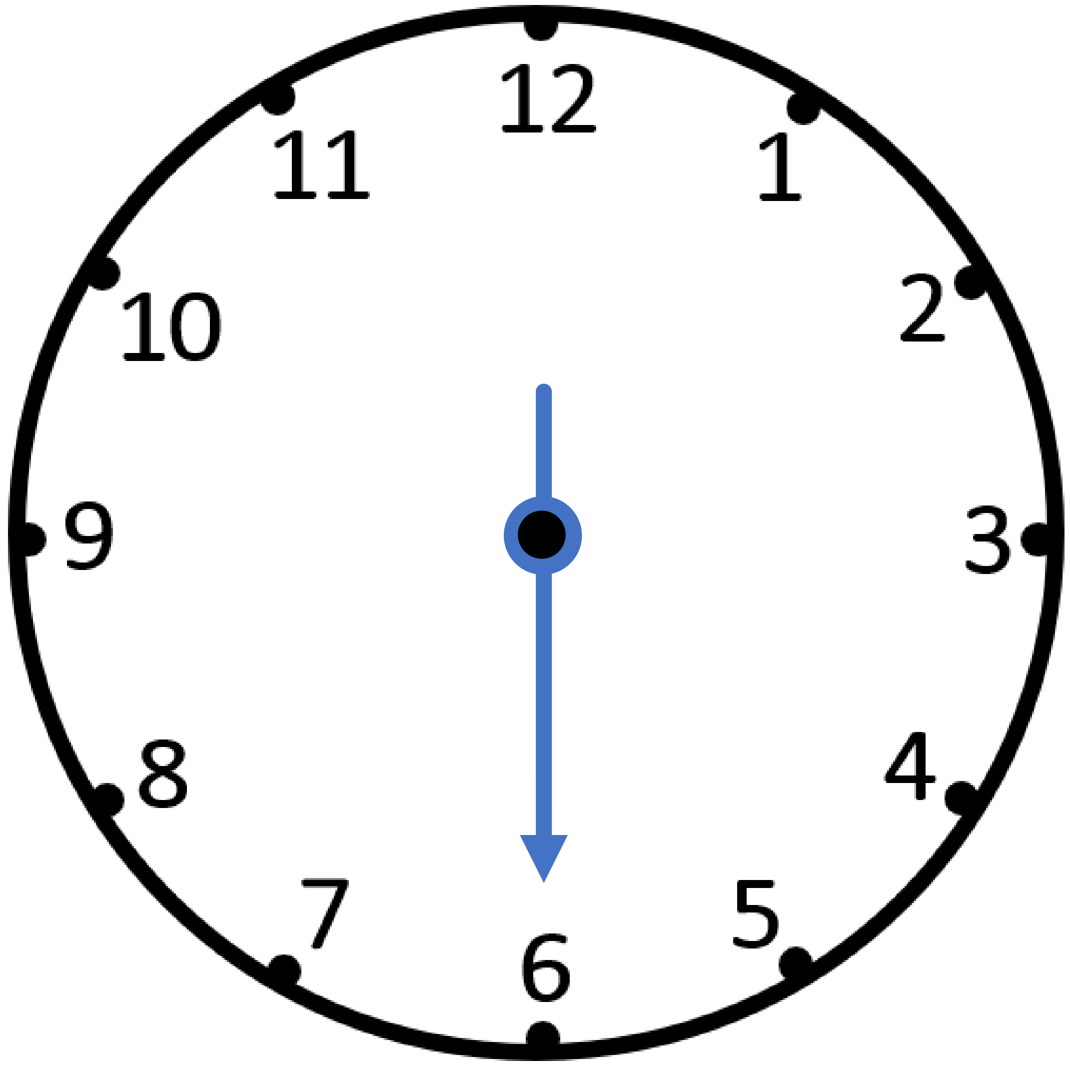
Angle and Turn

Build 1

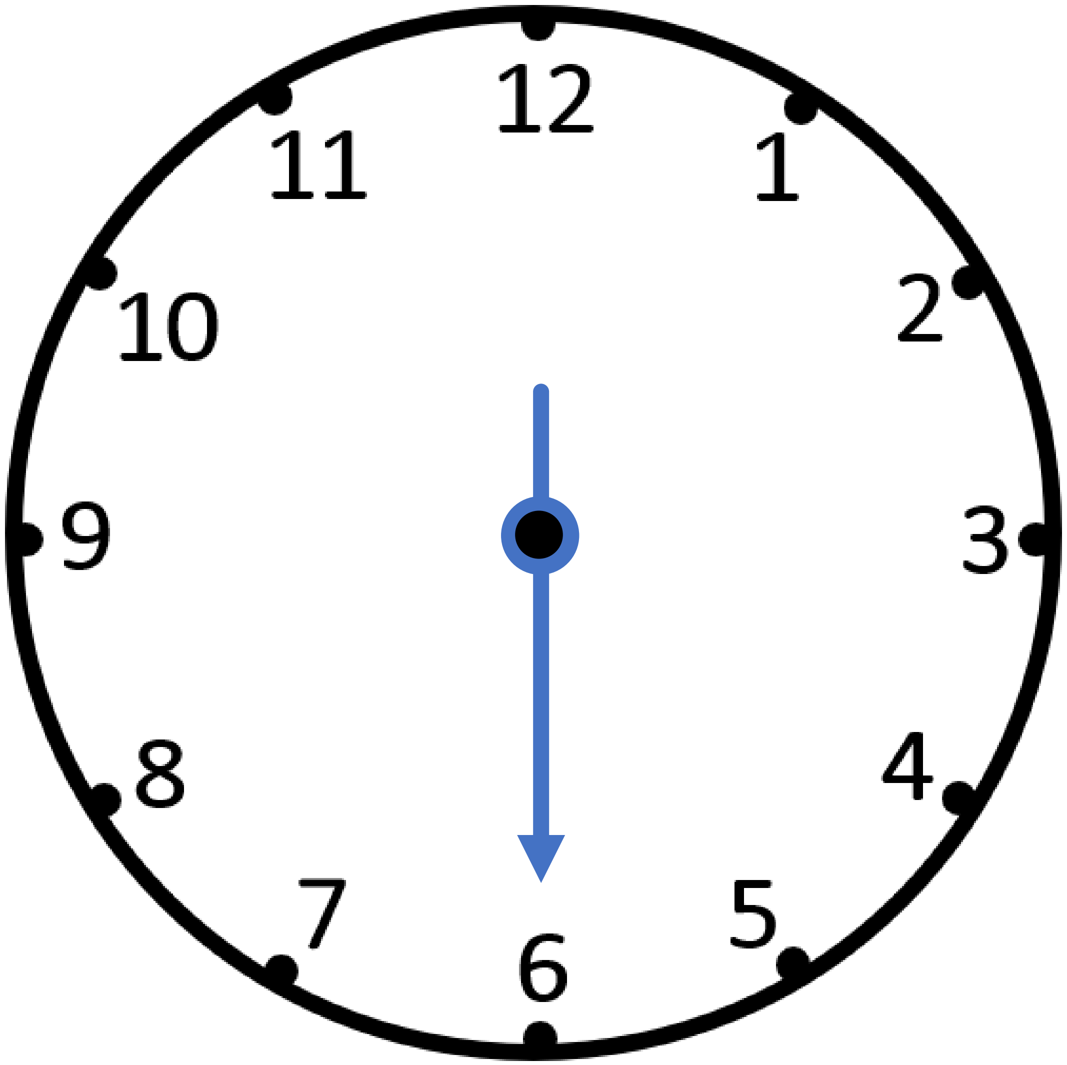


When the spinner turns

it will point at the number **6**

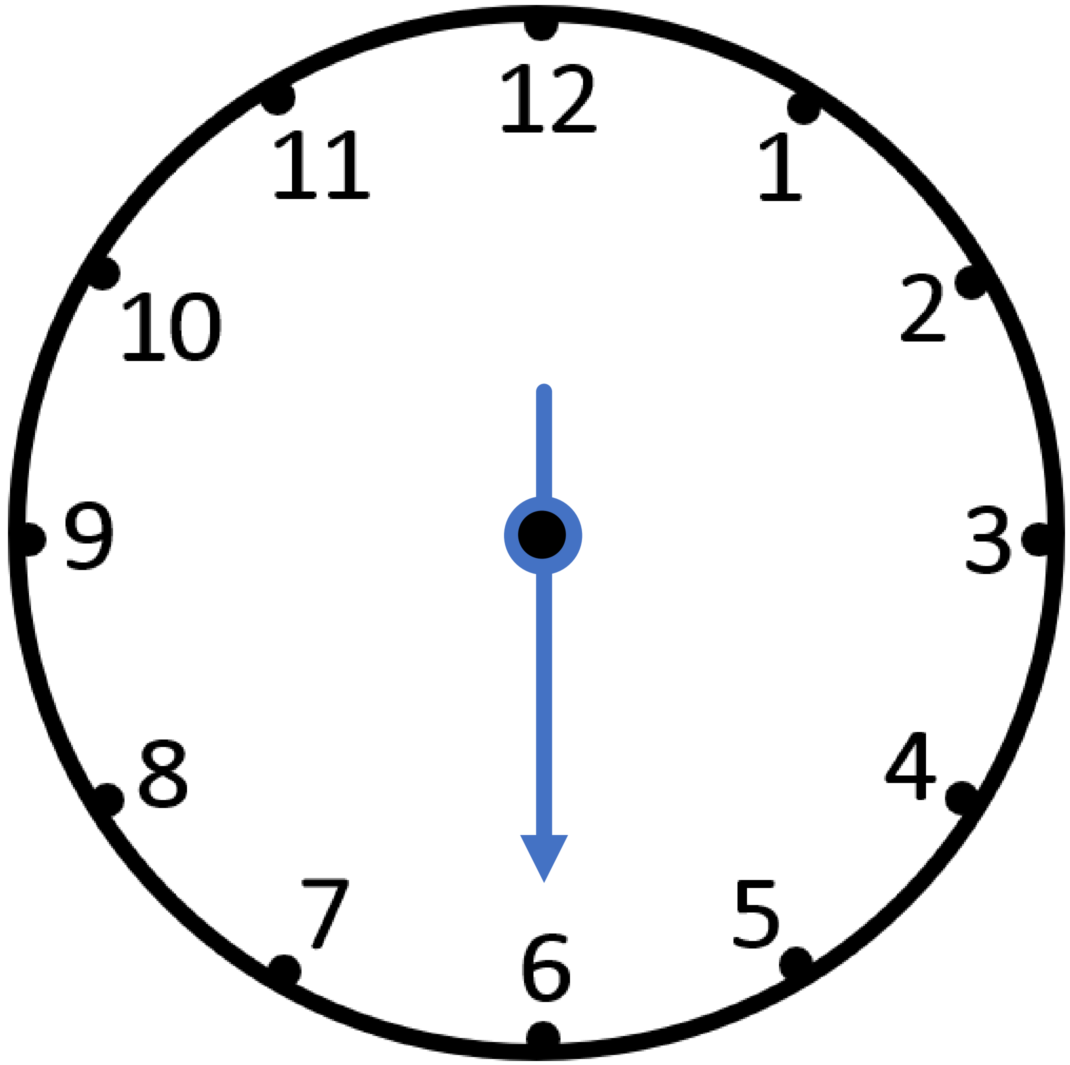


When the spinner turns **90° anticlockwise**, it will point at the number **6**



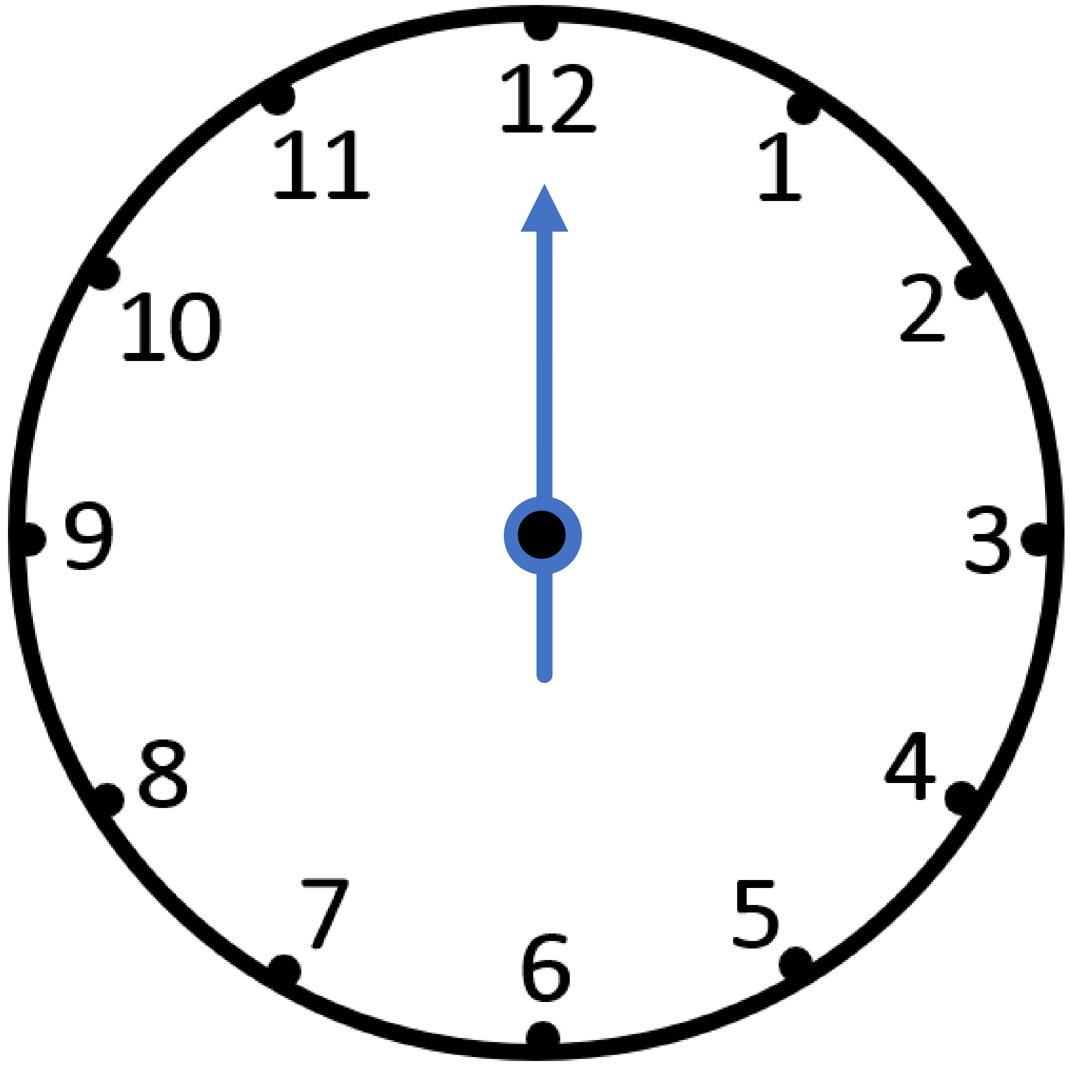
When the spinner turns

it will point at the number



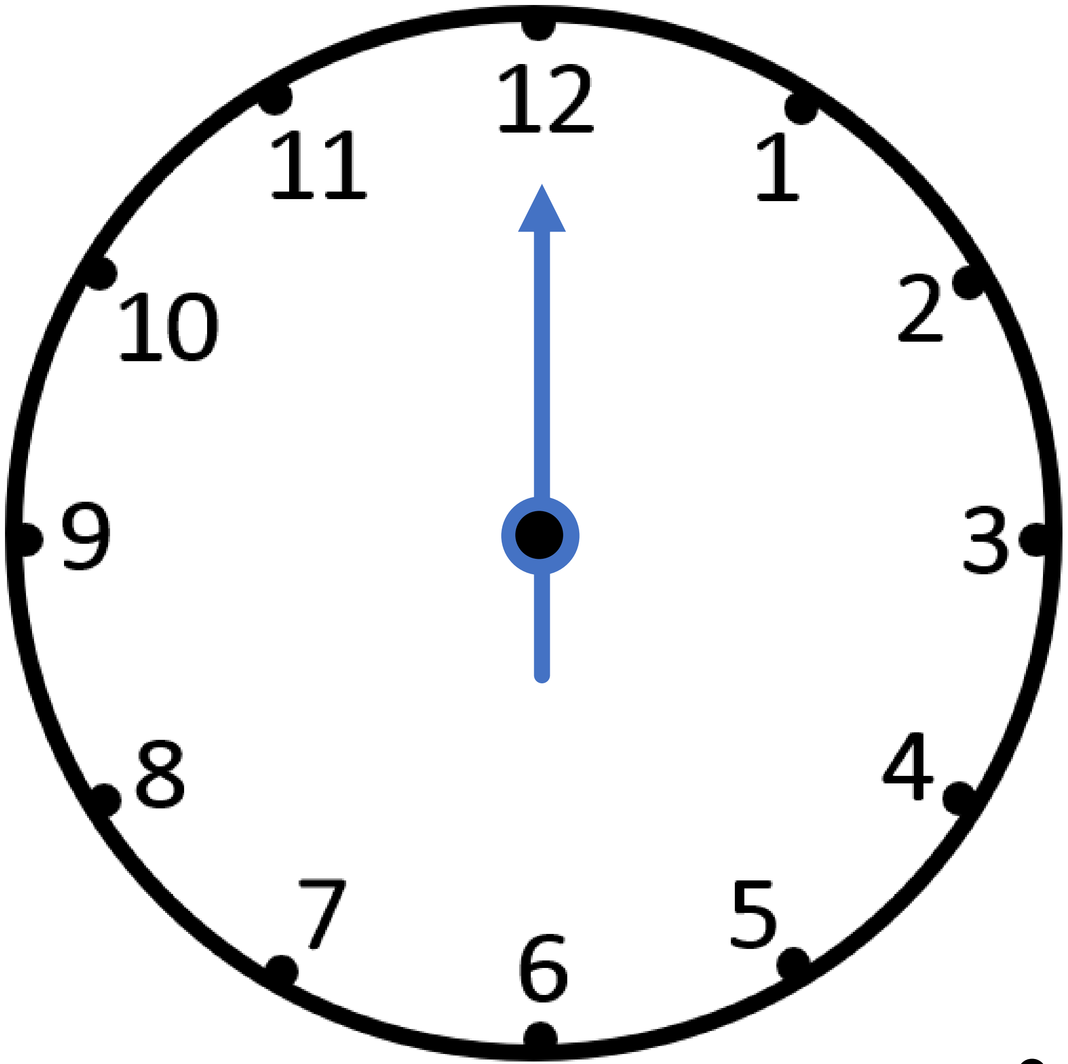
When the spinner turns

it will point at the number **12**



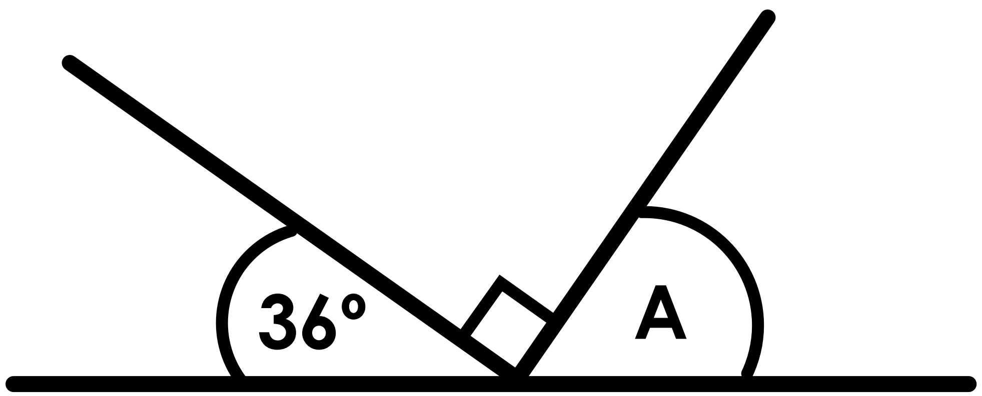
When the spinner turns **540°**,

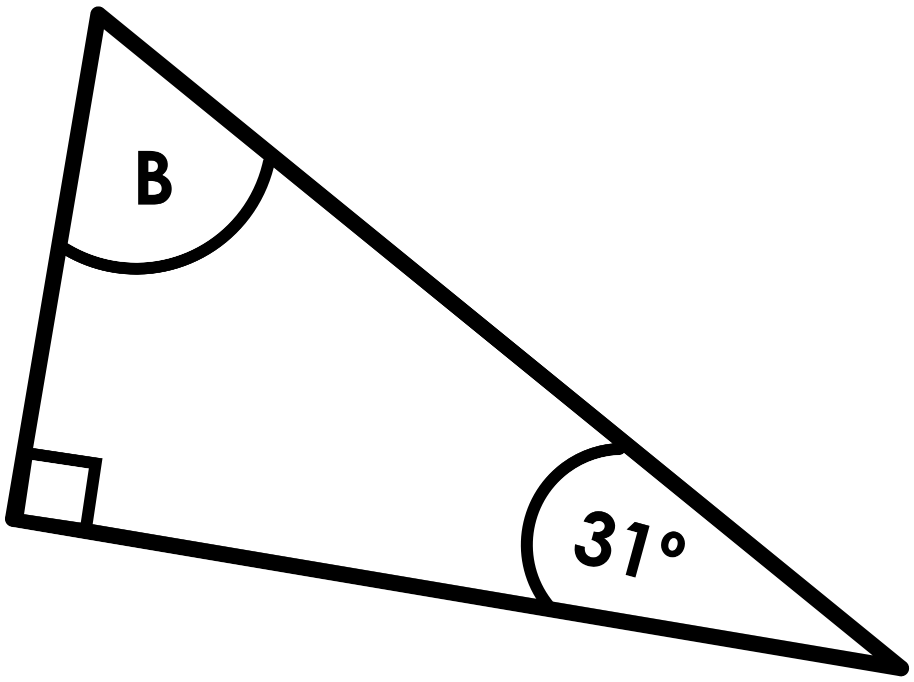
it will point at the number **12**



Same answer either direction

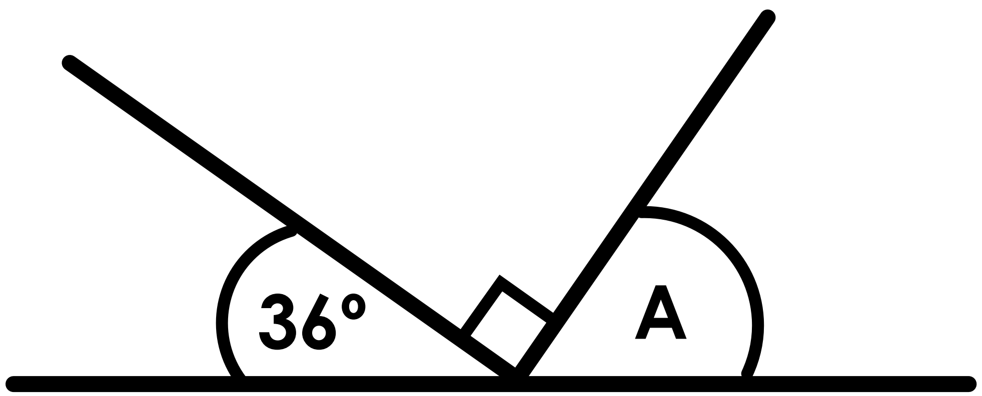
When the spinner turns **540°**,
it will point at the number **12**

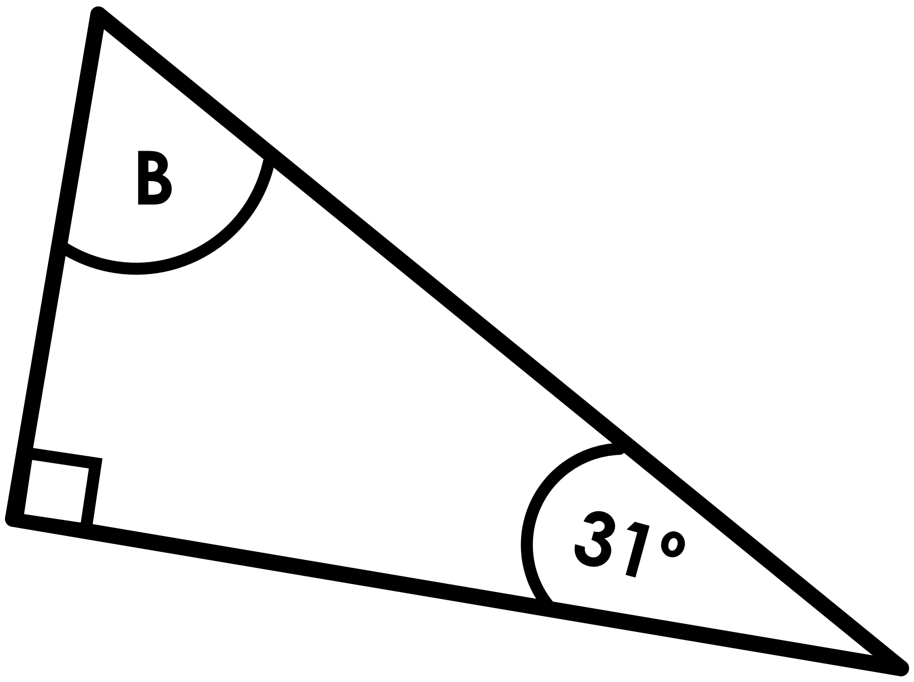




What's the same?

What's different?

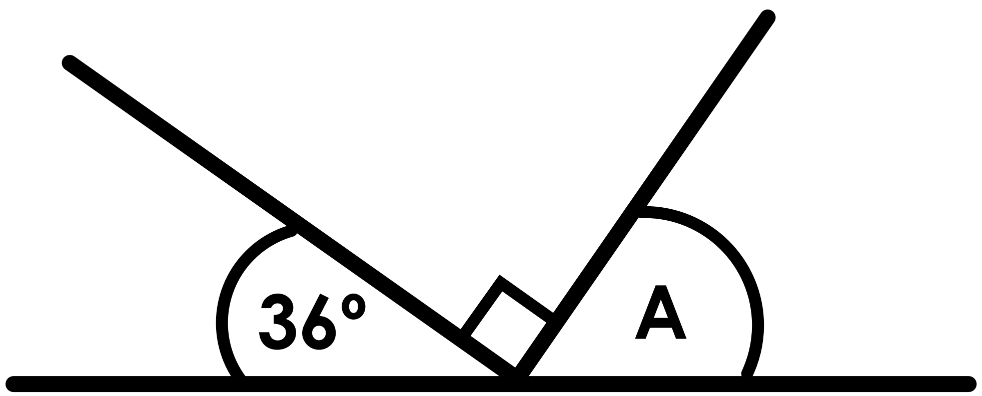


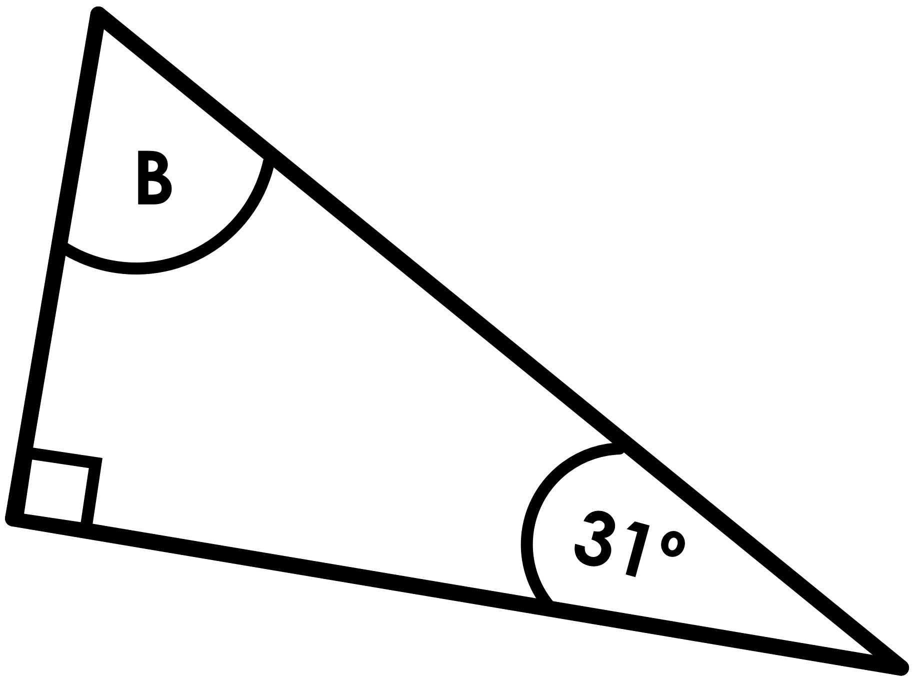


Angle A is **larger/smaller** than angle B.

Explain.

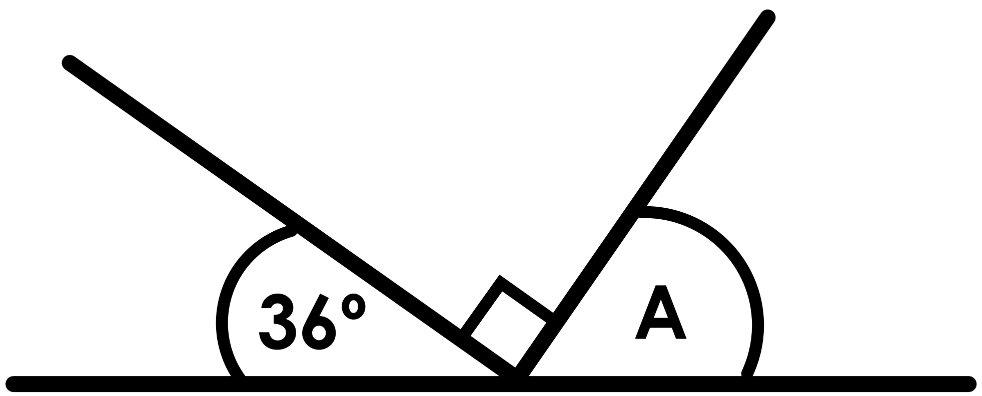
Build 2





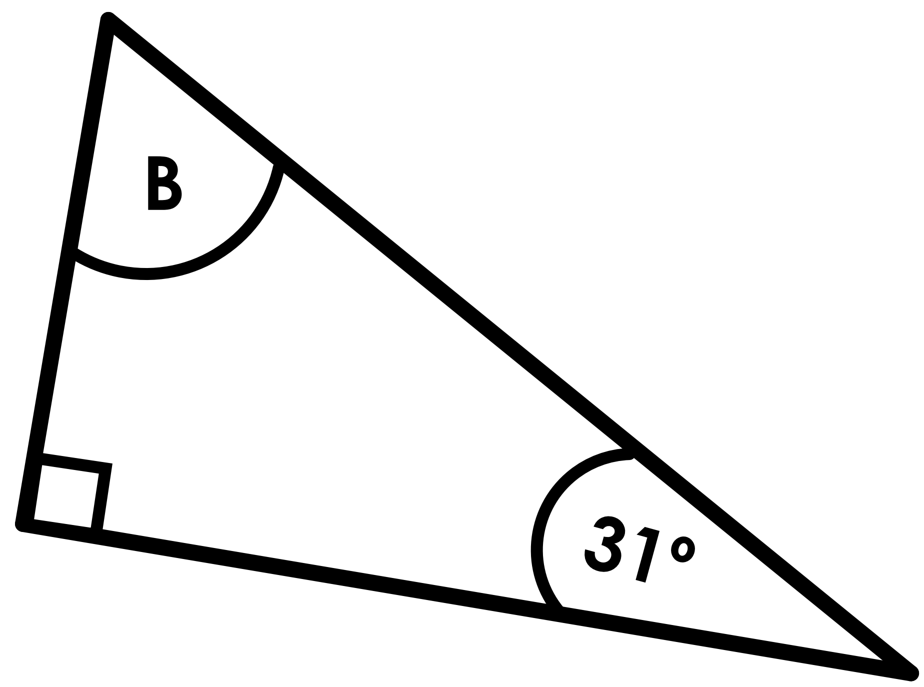
$180° - (90° + 36°)$
$= 54°$

$A = 54°$



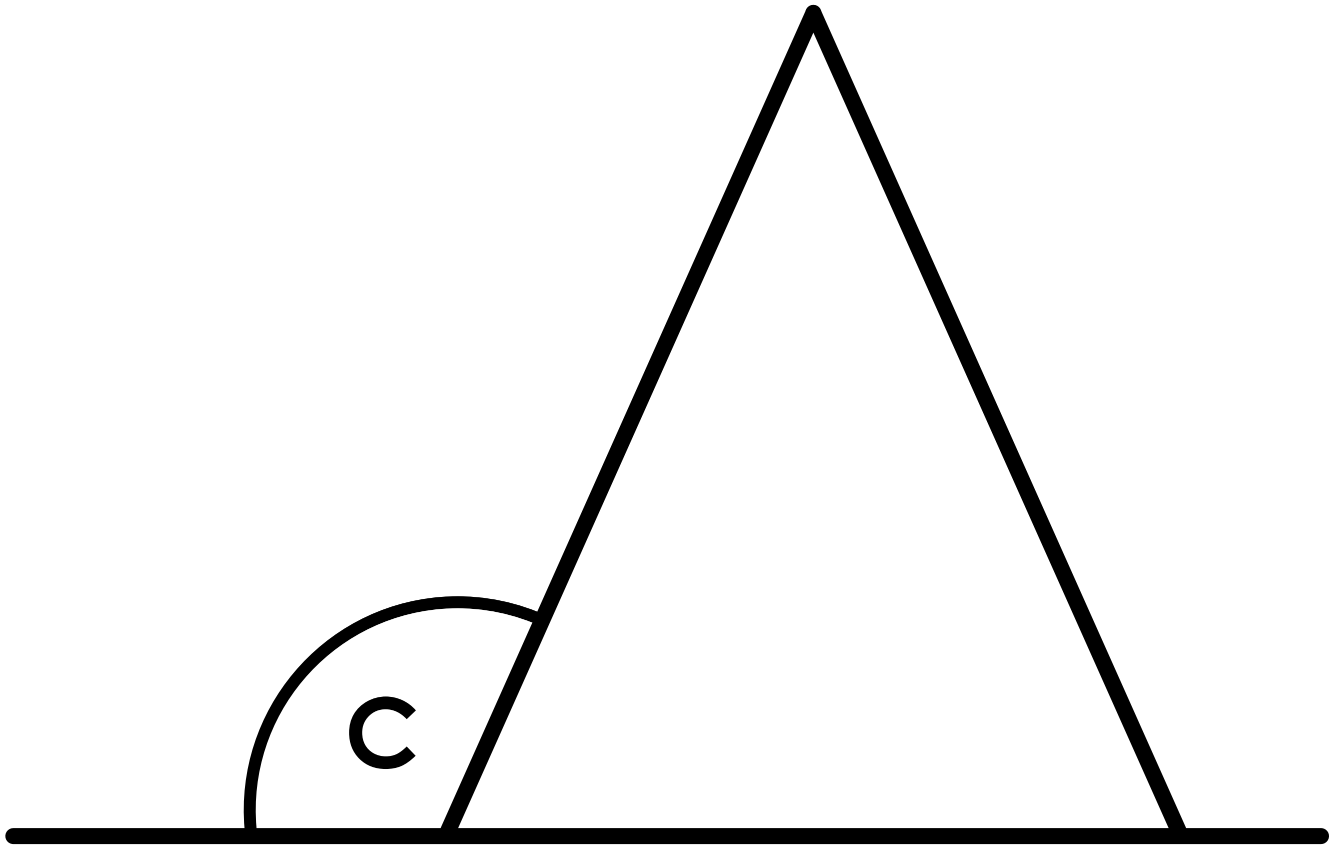
$180° - (90° + 36°)$
$= 54°$

A = 54°



$180° - (90° + 31°)$
$= 59°$

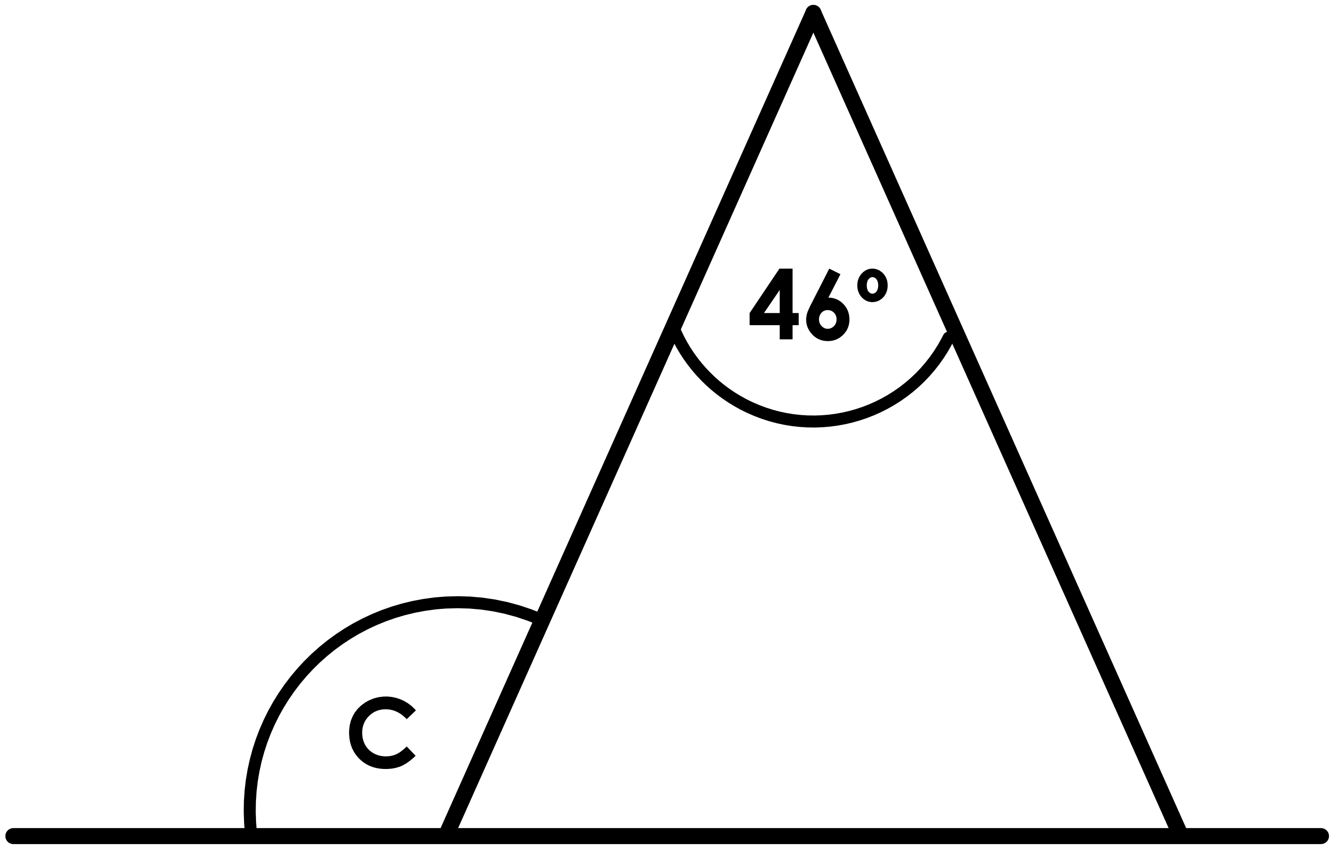
B = 59°



Calculate angle C.

Estimate the size of angle C.

To calculate angle C, I need to know…

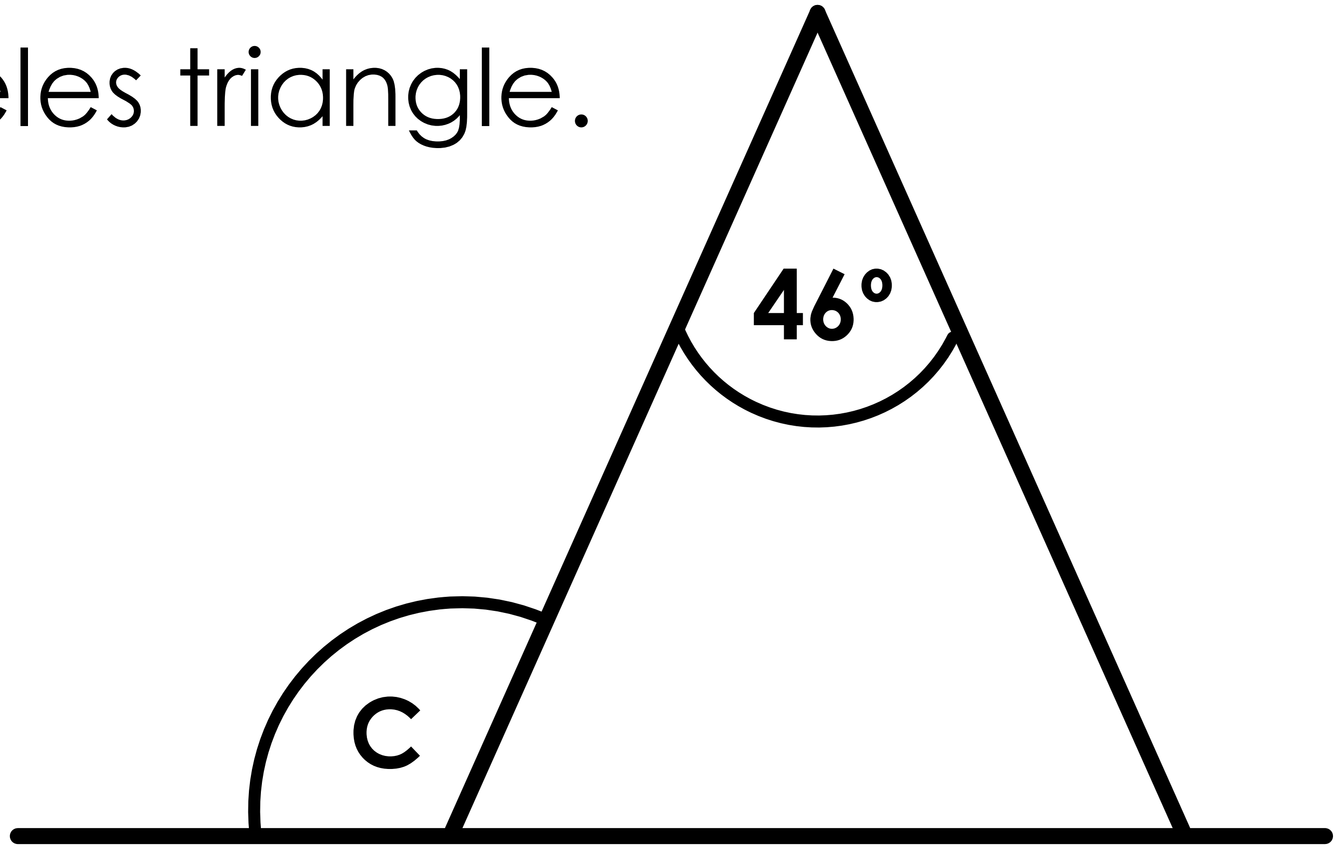


Calculate angle C.

Estimate the size of angle C.

To calculate angle C, I need to know…

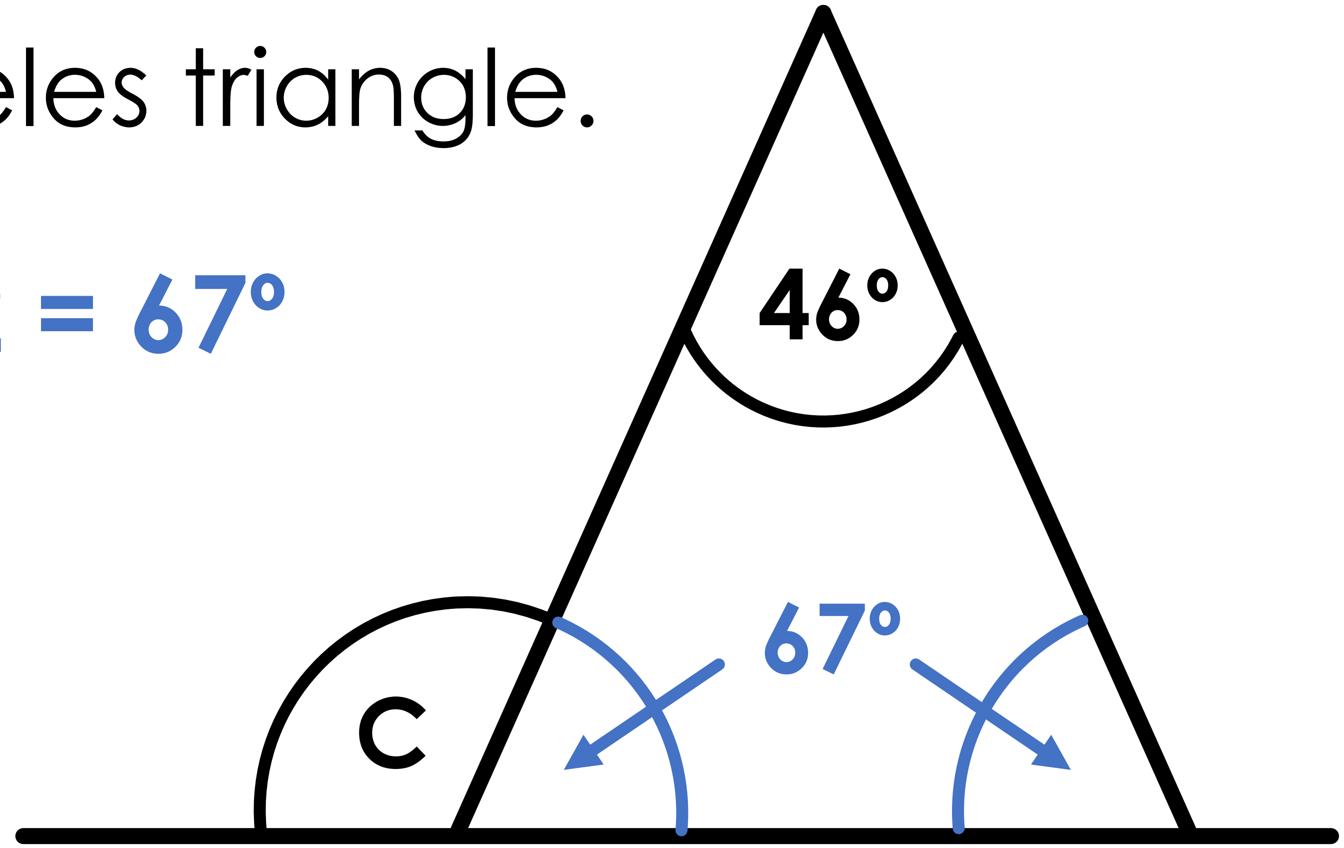
This is an isosceles triangle.



Calculate angle C.

This is an isosceles triangle.

$(180° - 46°) \div 2 = 67°$



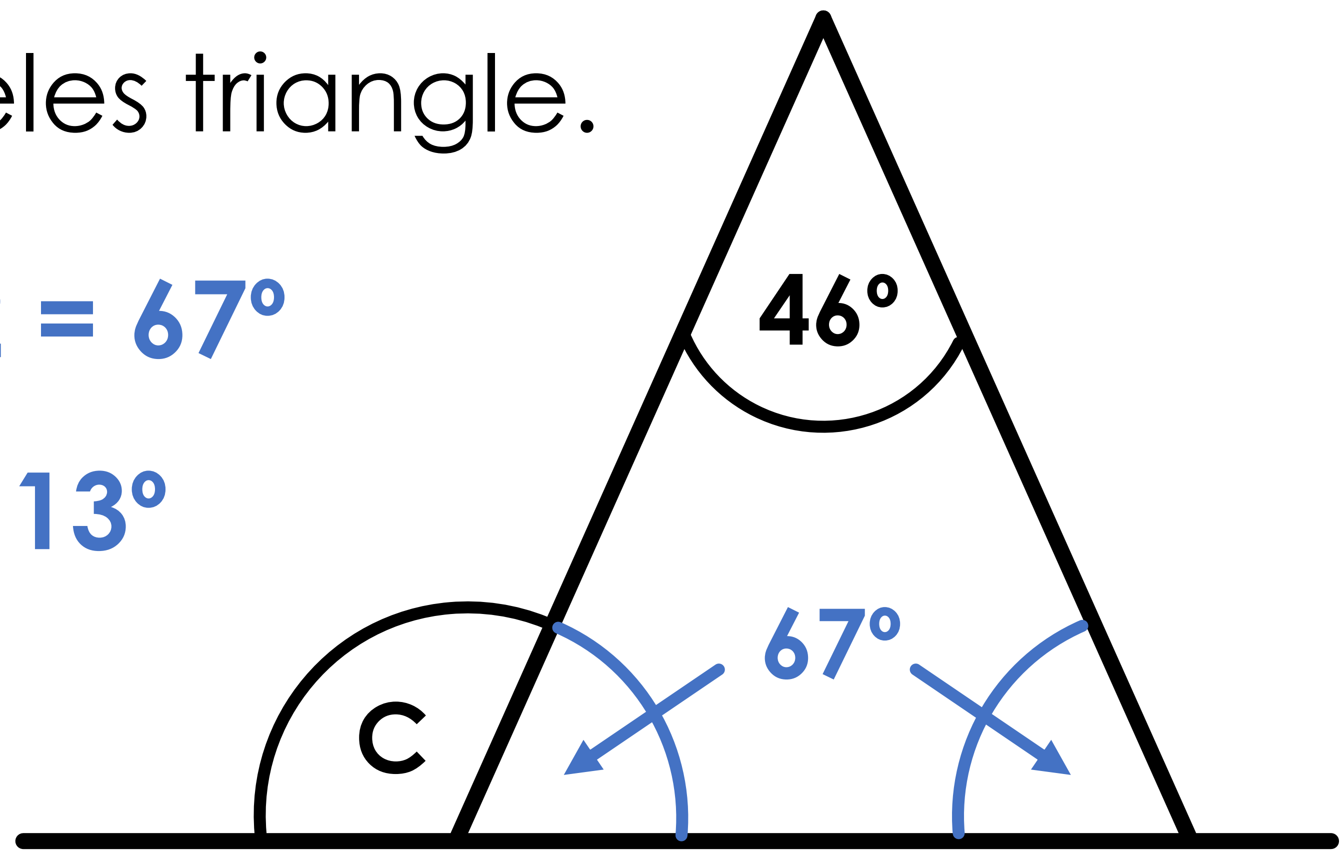
Calculate angle C.

This is an isosceles triangle.

$(180° – 46°) ÷ 2 = 67°$

$(180° – 67°) = 113°$

$C = 113°$



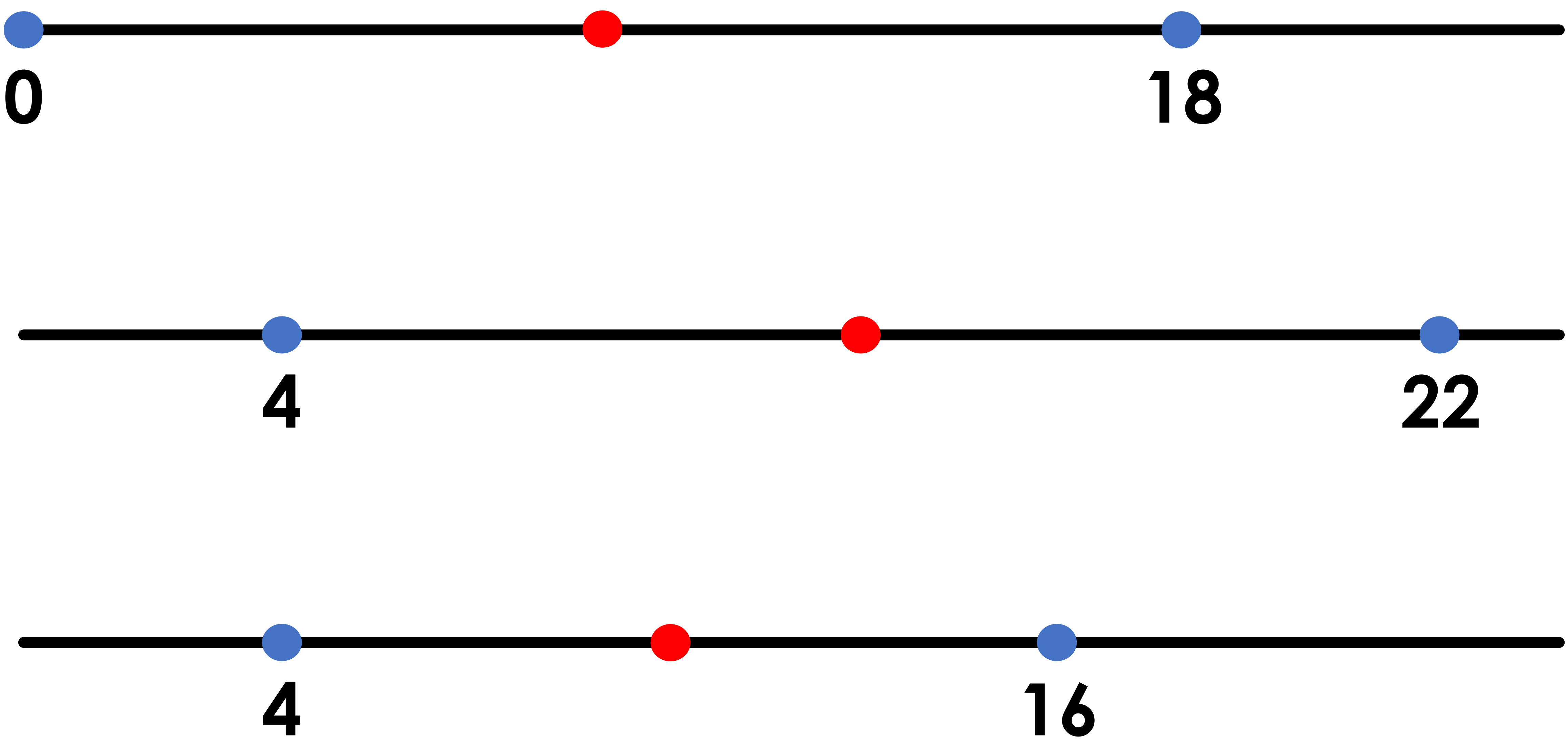
Calculate angle C.

Derive Coordinates

Build 1

Each red dot is the **midpoint** between the blue dots.

Calculate the midpoints:



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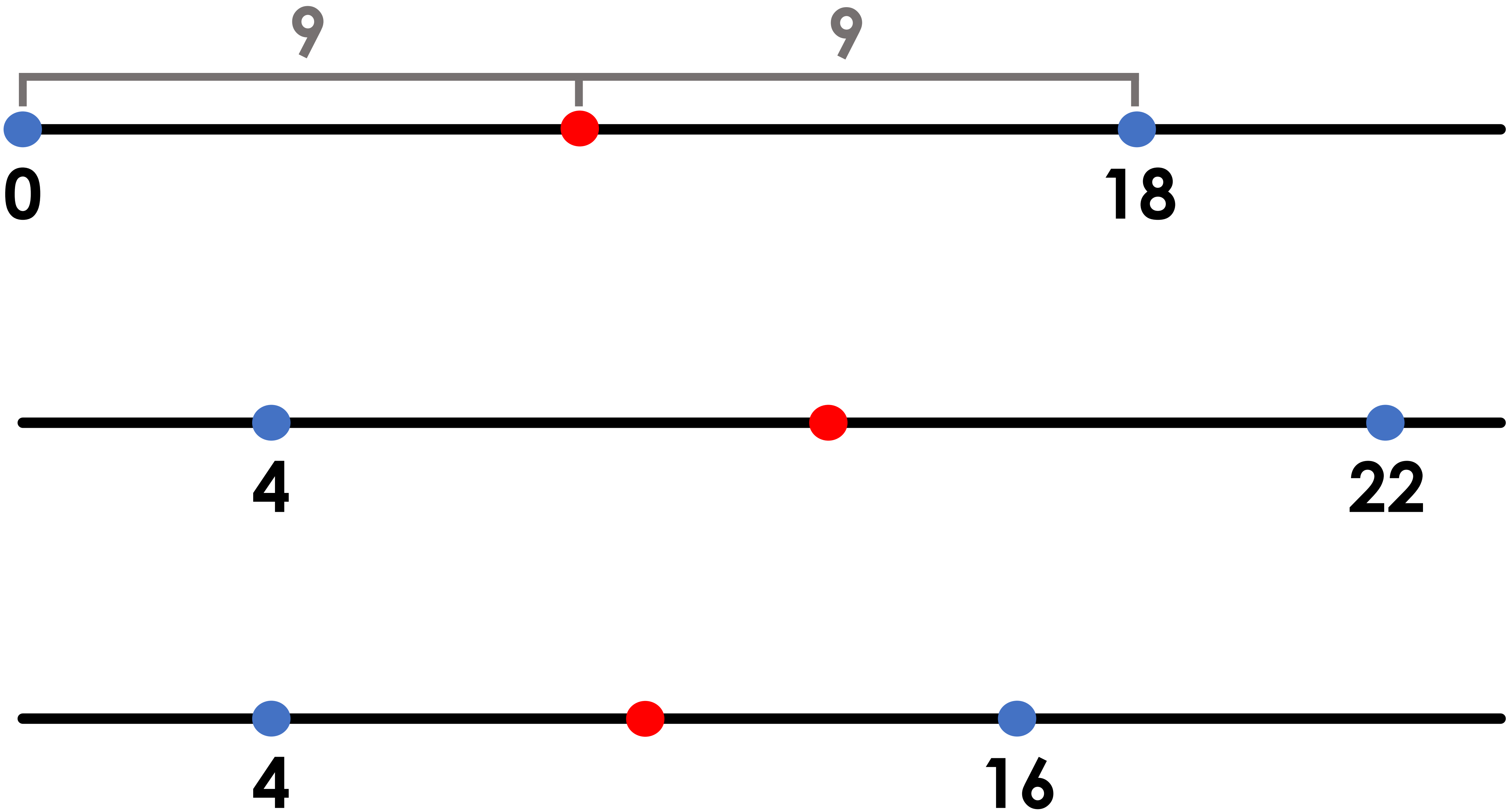

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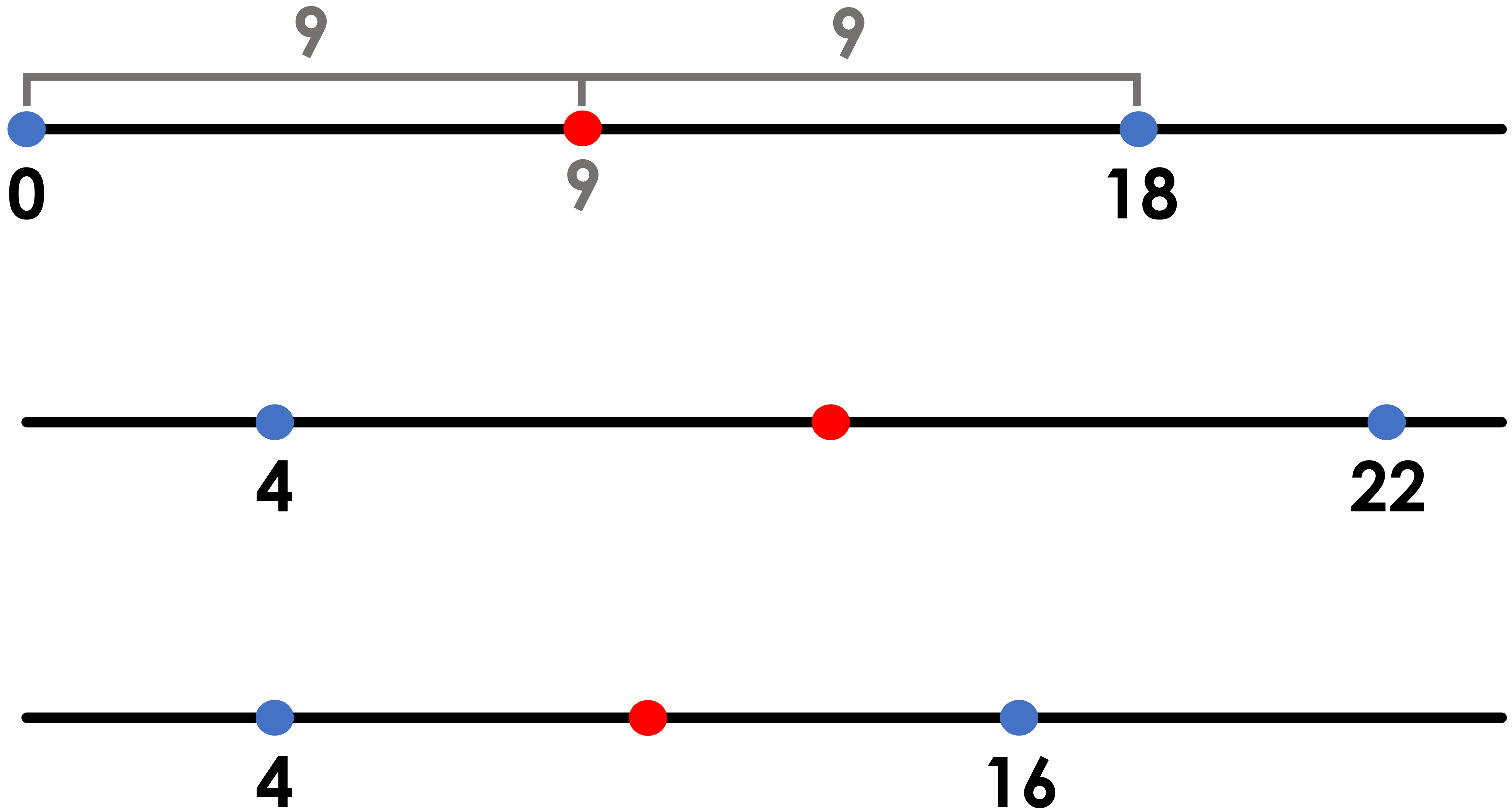

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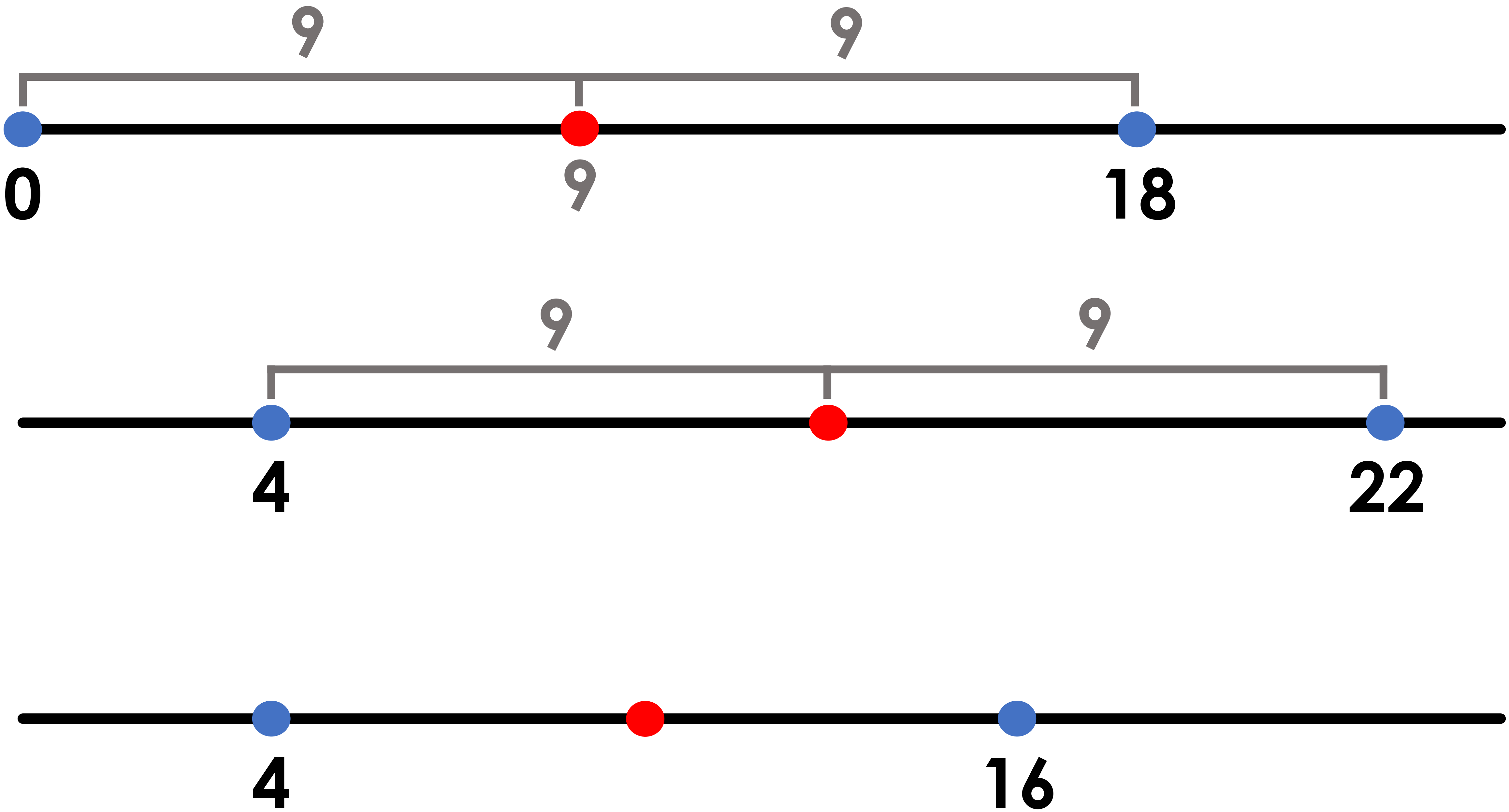

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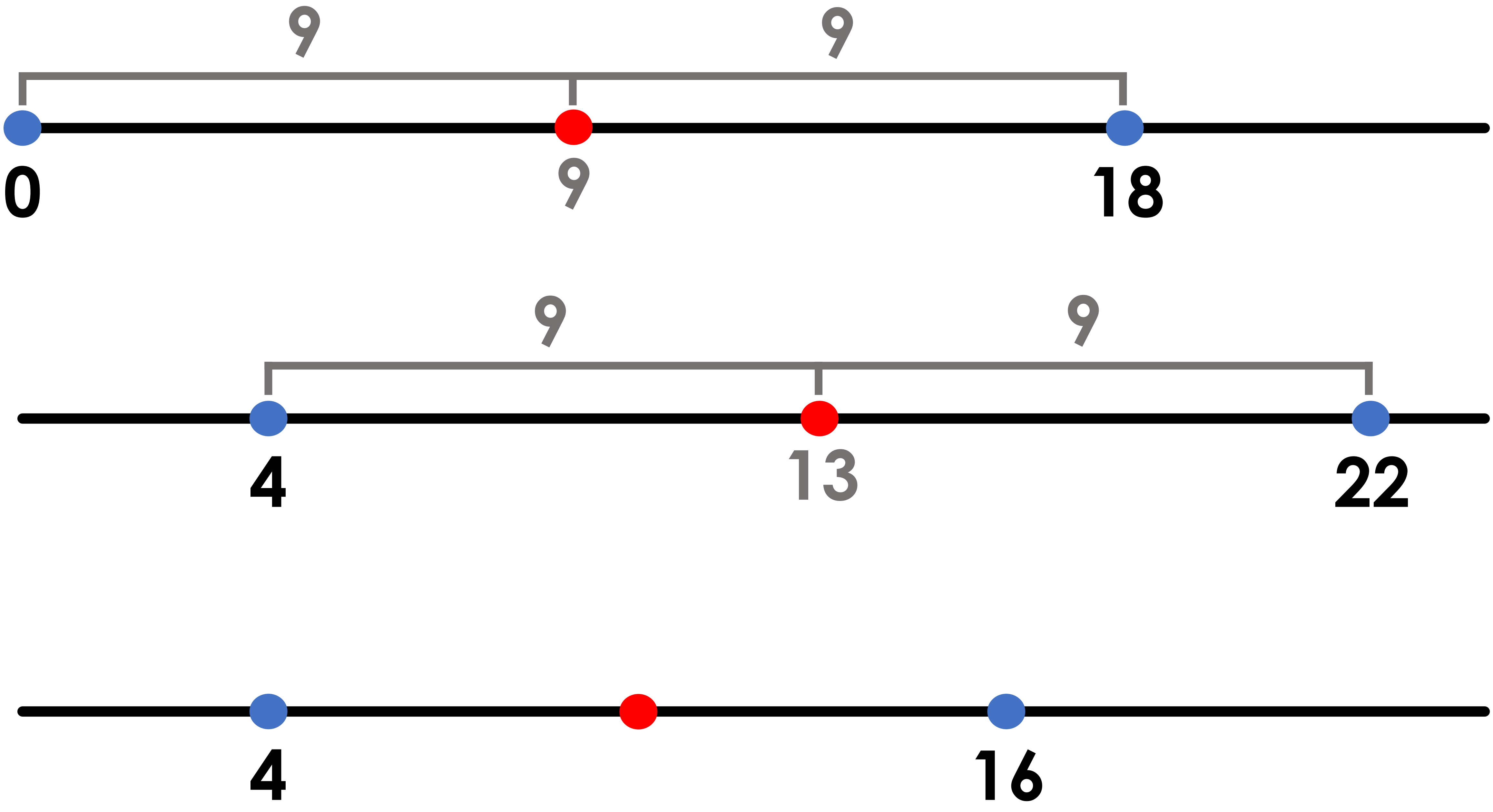

Derive Coordinates

Build 1

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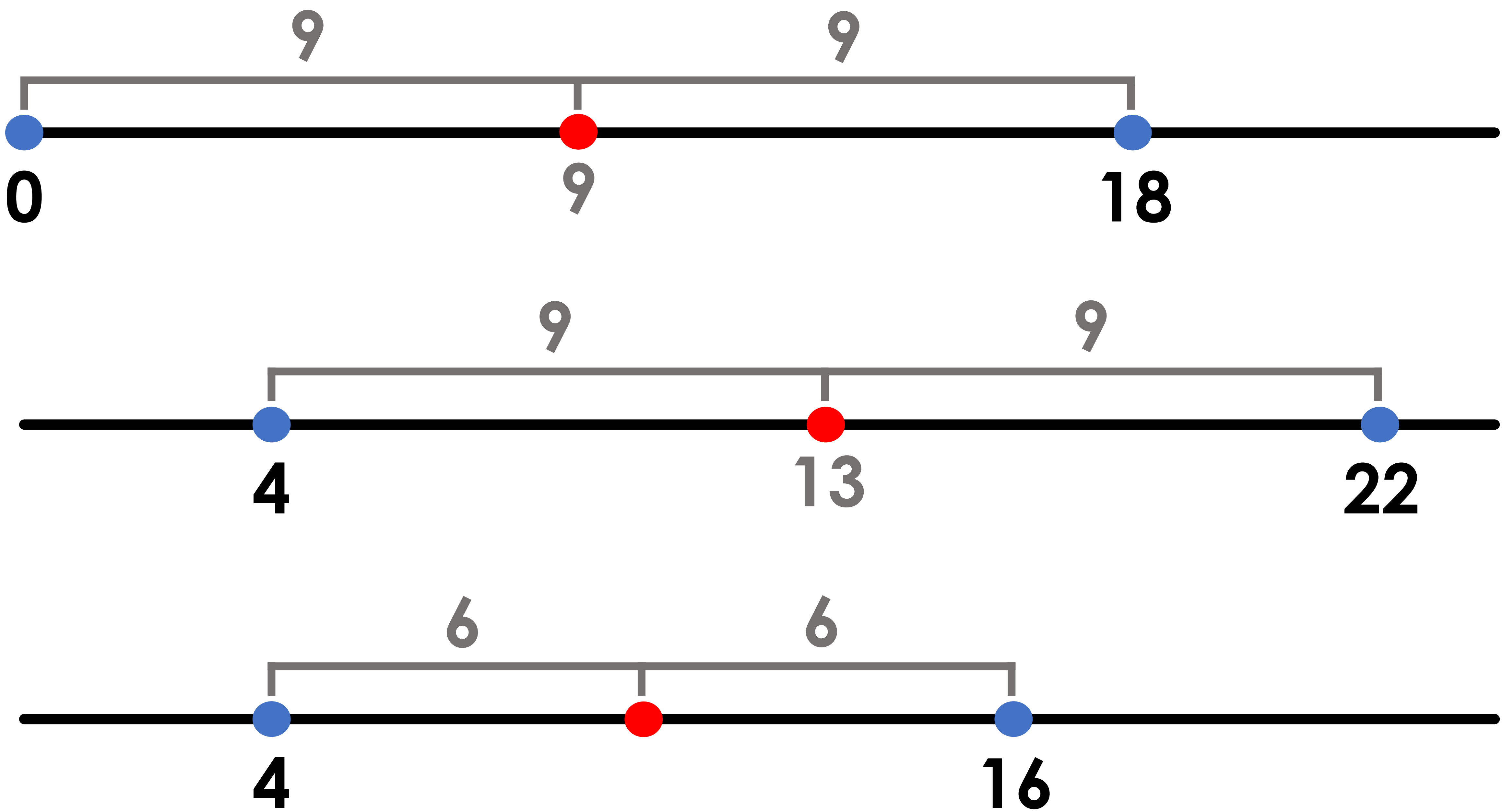
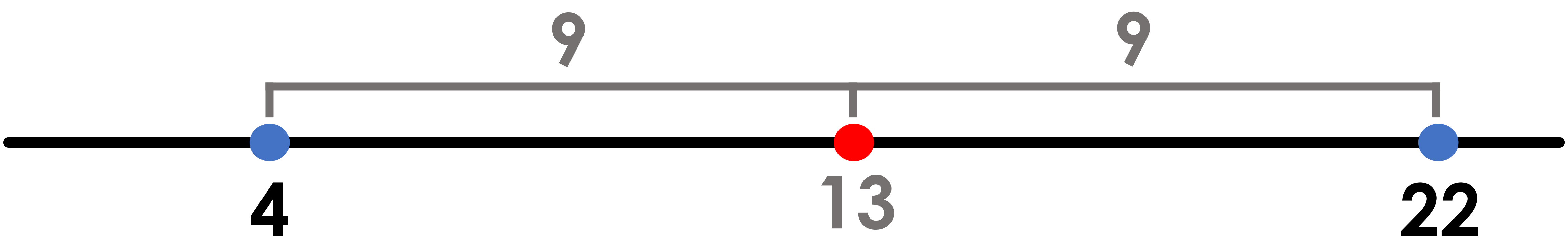
Calculate the midpoints:

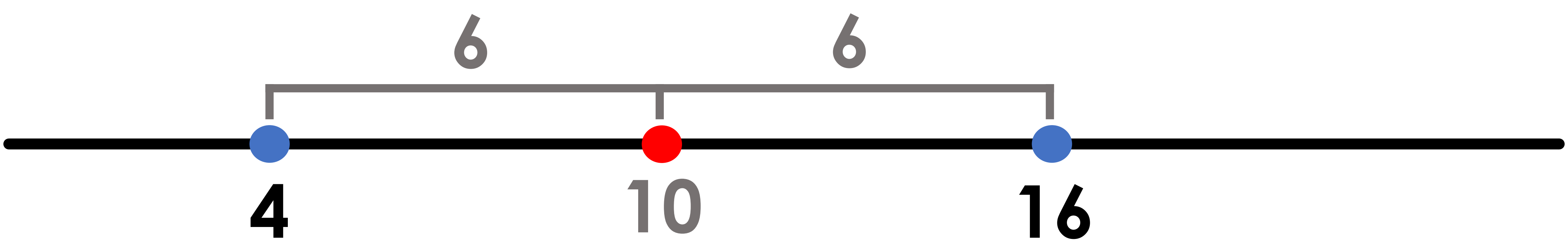


Derive Coordinates Build 1

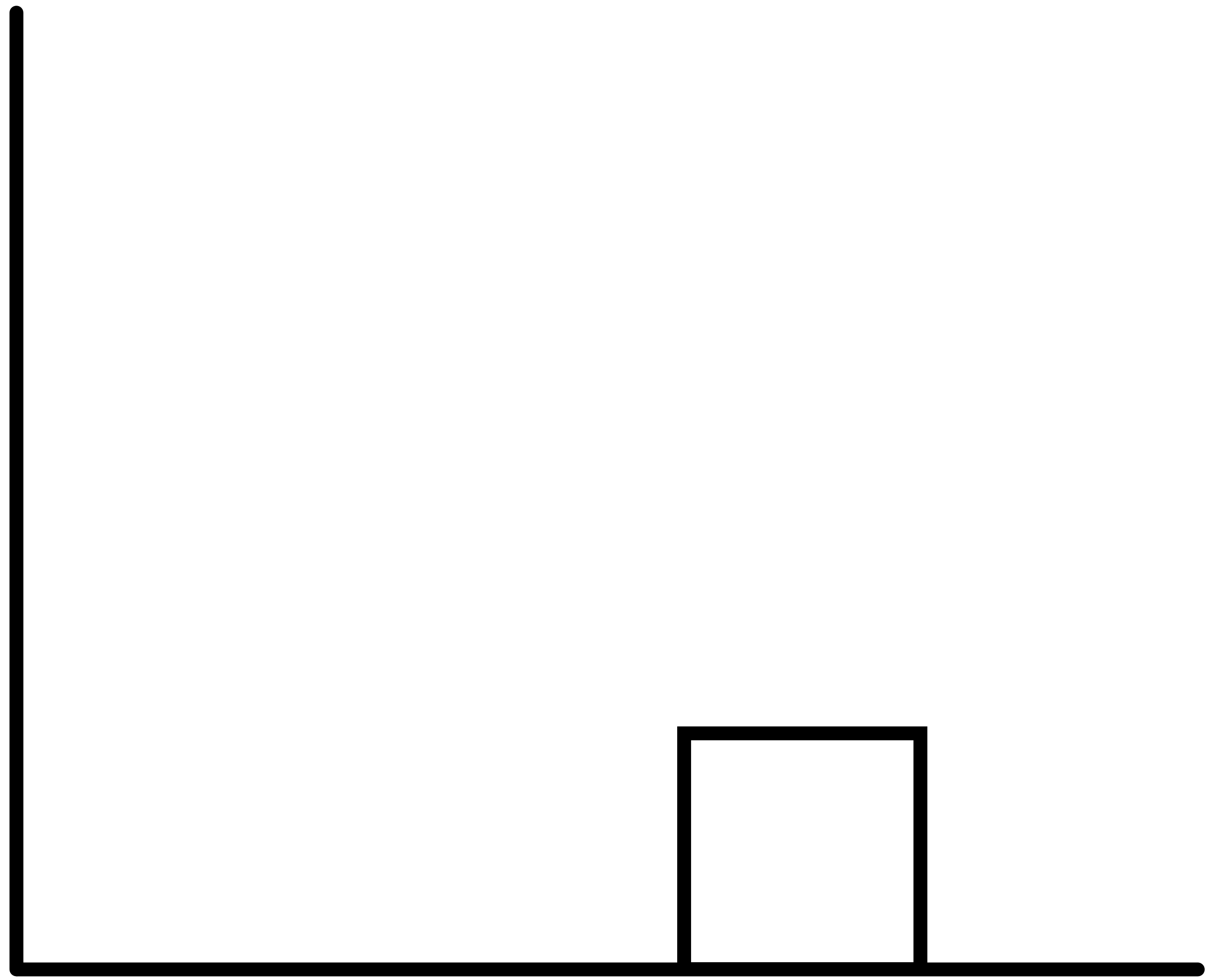
Each red dot is the **midpoint** between the blue dots.

Calculate the midpoints:

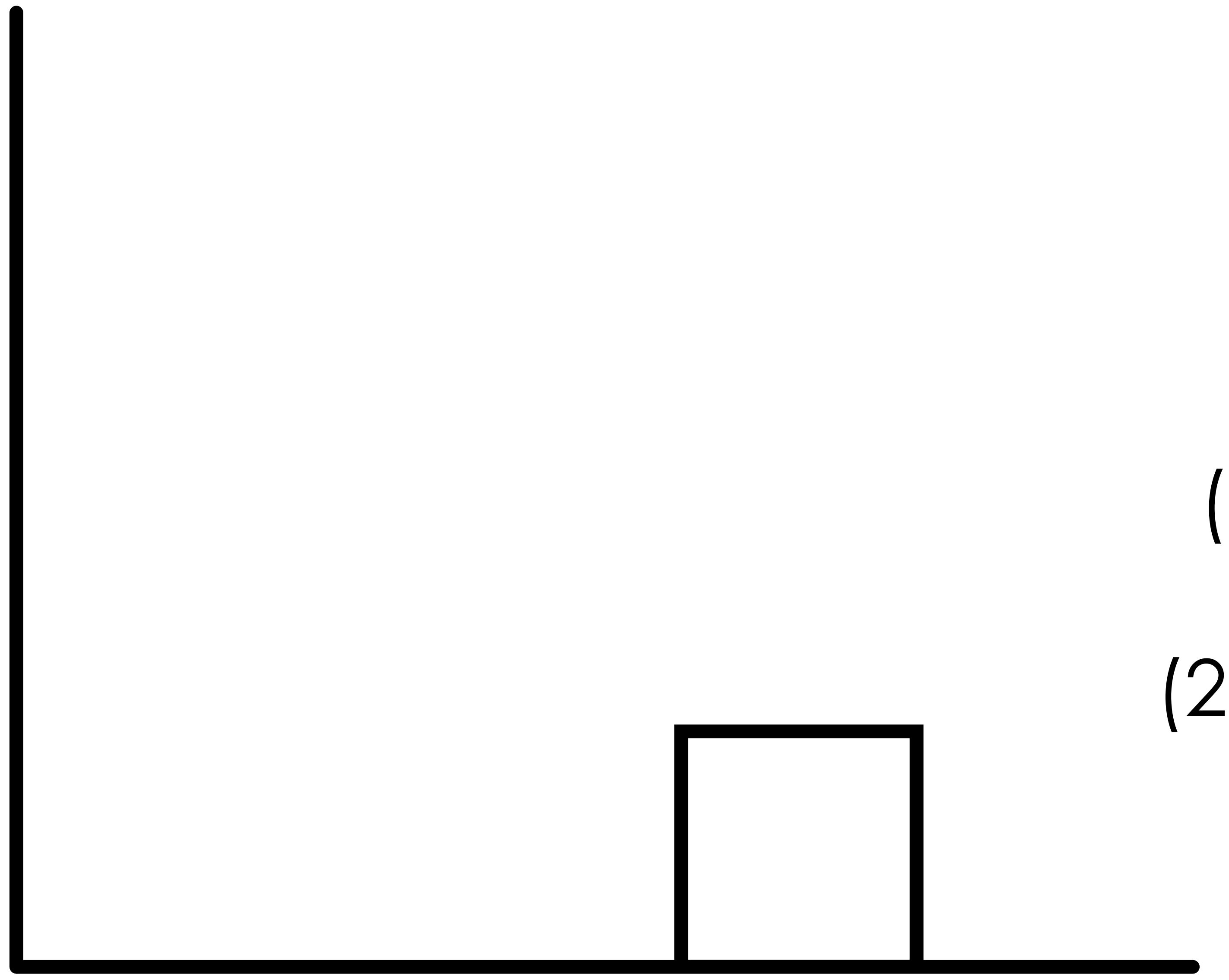




Which coordinates could be inside the square?



Which coordinates could be inside the square?



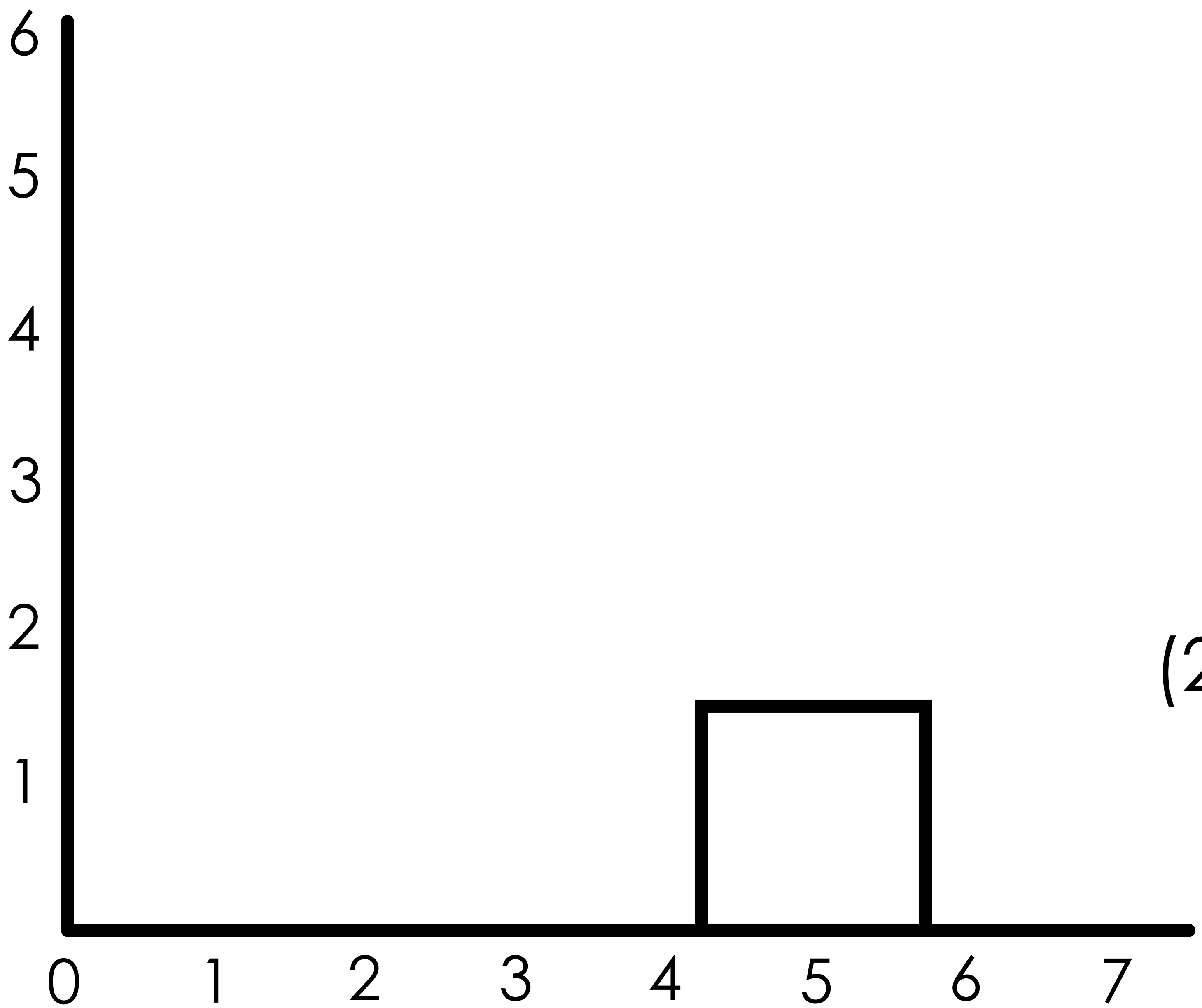
(1,5)

(5,1)

(25,5)

(25,15)

Which coordinates could be inside the square?



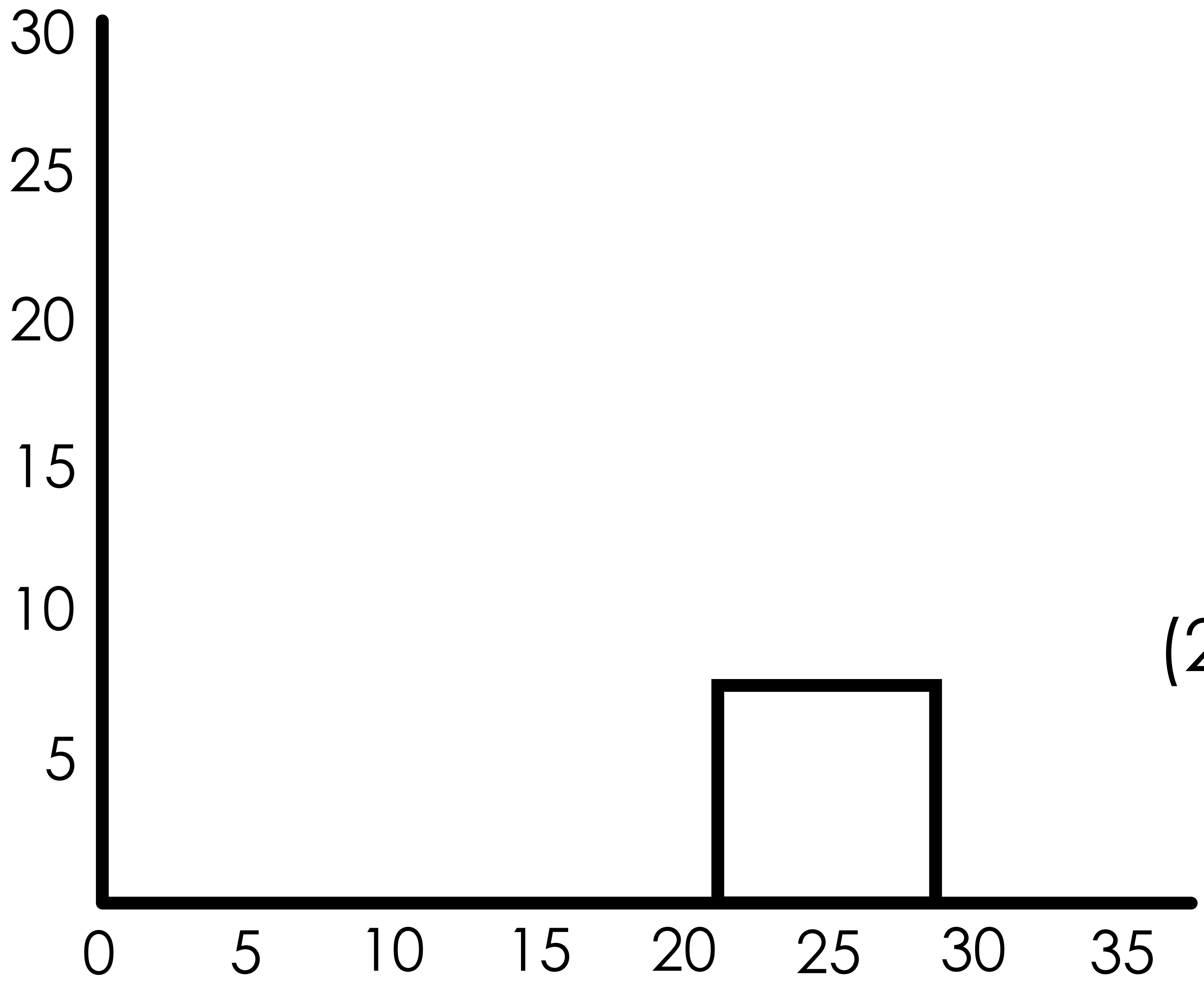
(1,5) **not possible**

(5,1) **possible**

(25,5)

(25,15)

Which coordinates could be inside the square?



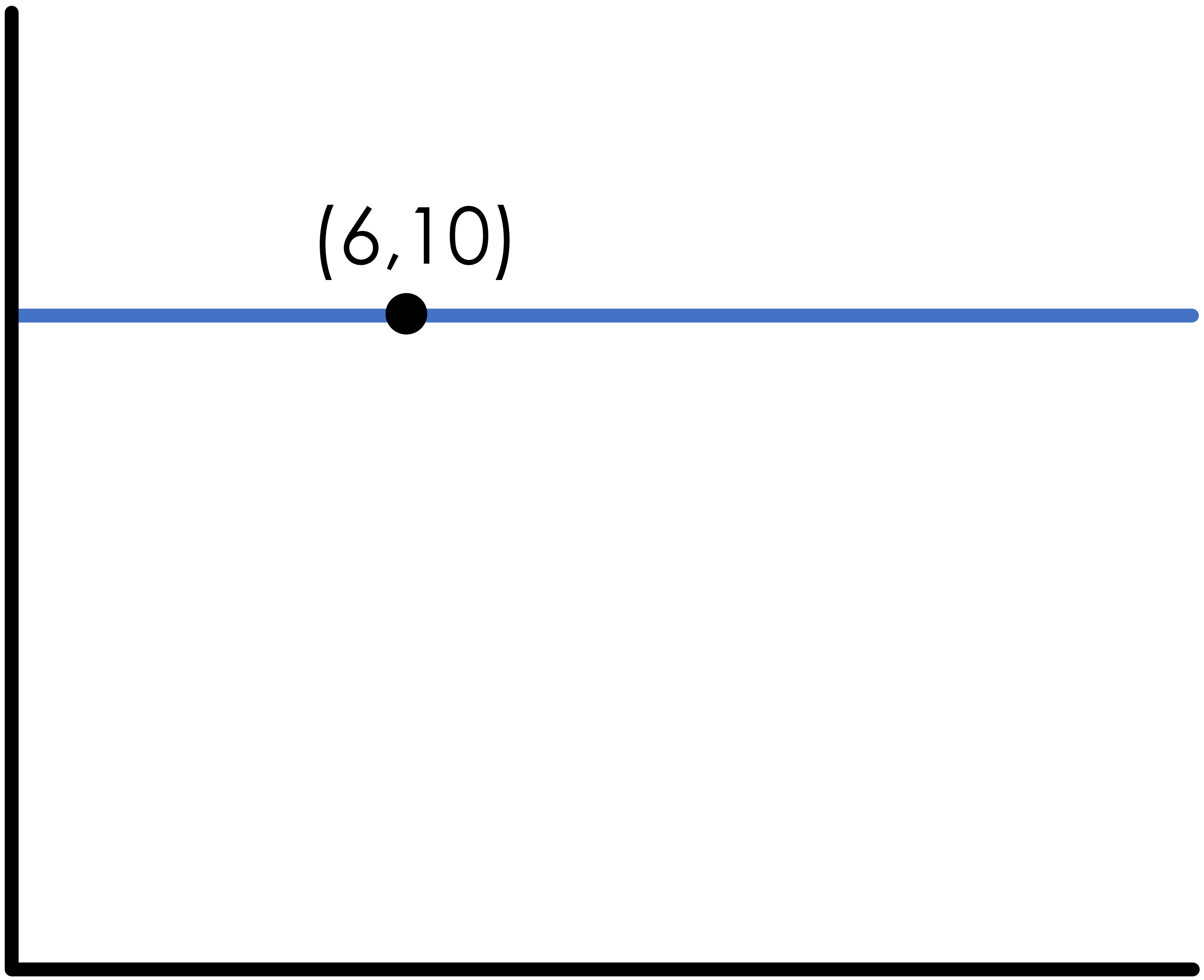
(1,5) **not possible**

(5,1) **possible**

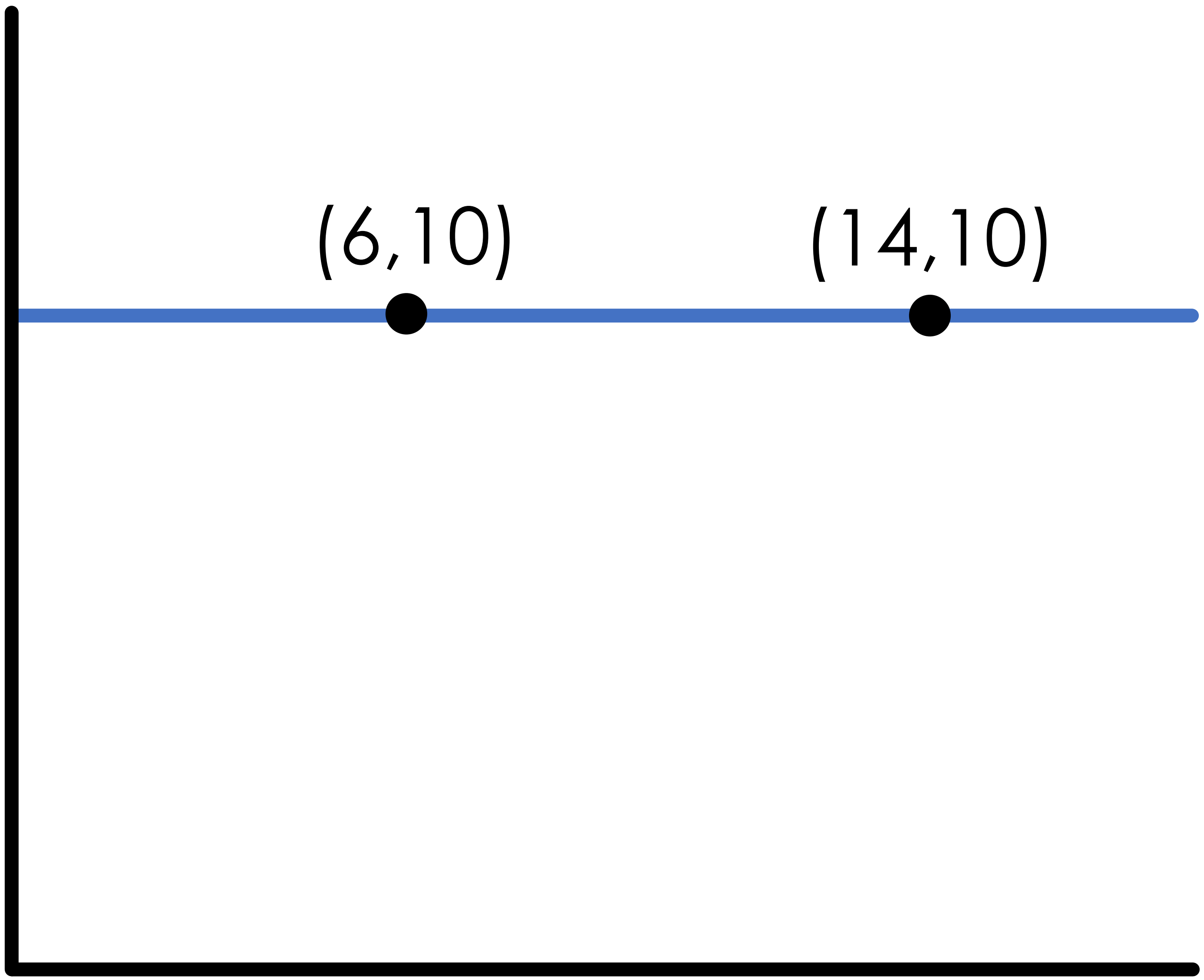
(25,5) **possible**

(25,15) **not possible**

Which coordinates could be on the blue line?



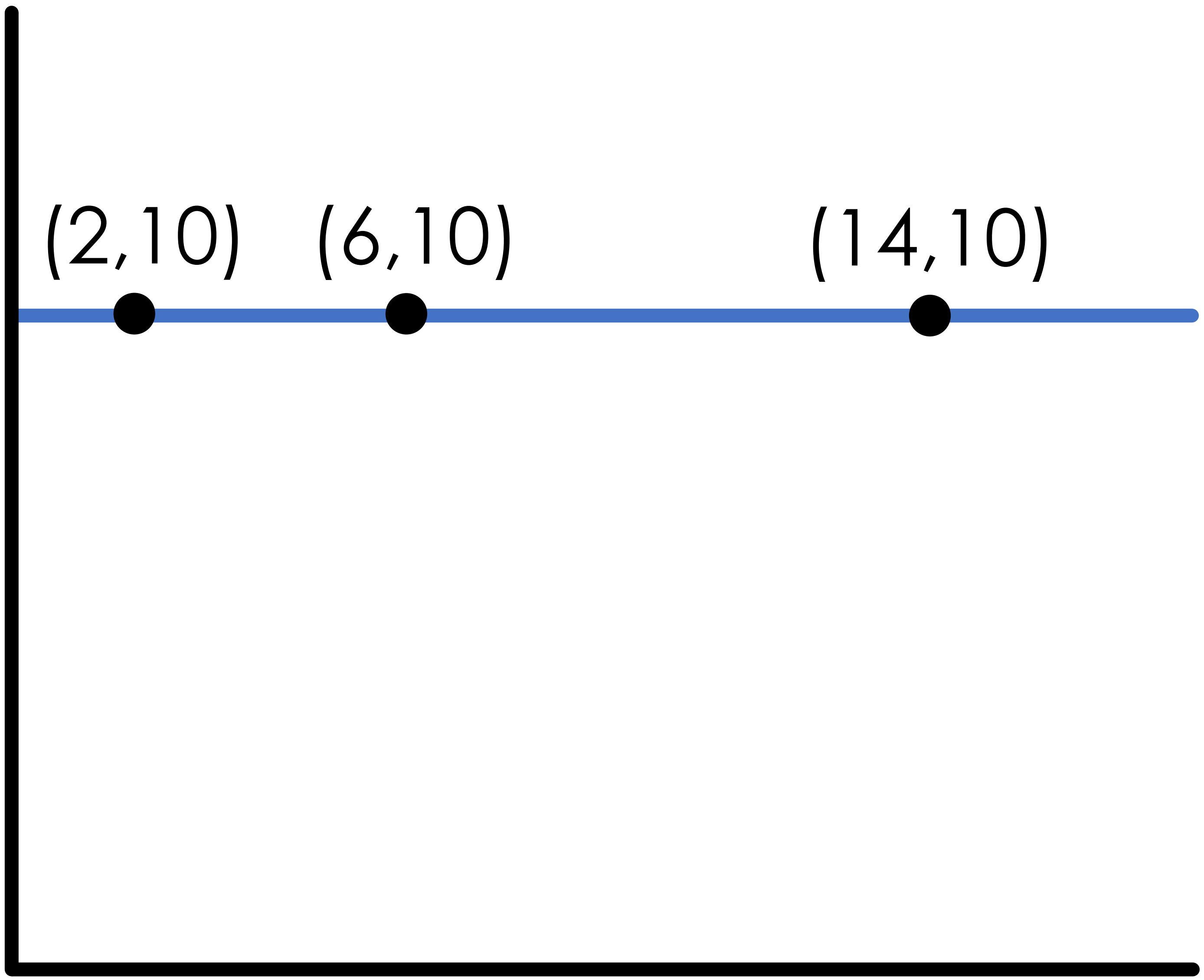
Which coordinates could be on the blue line?



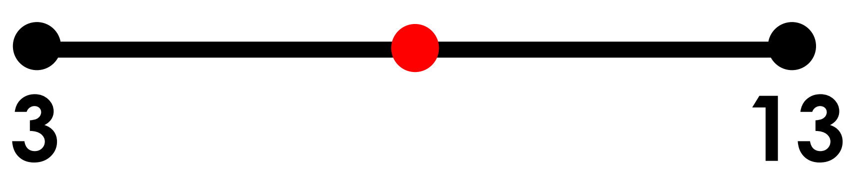
Derive Coordinates

Build 2

Which coordinates could be on the blue line?



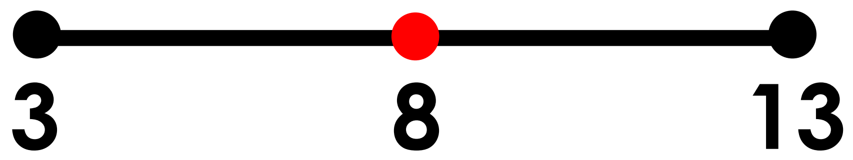
What is the midpoint of the line?



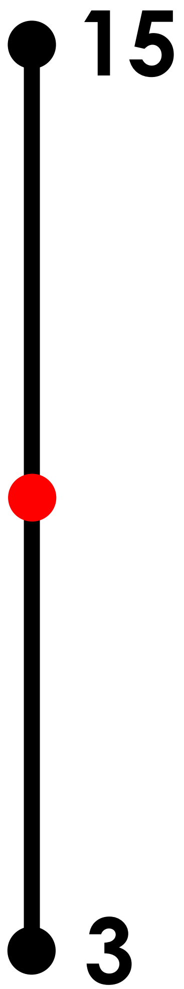
Derive Coordinates

Build 3

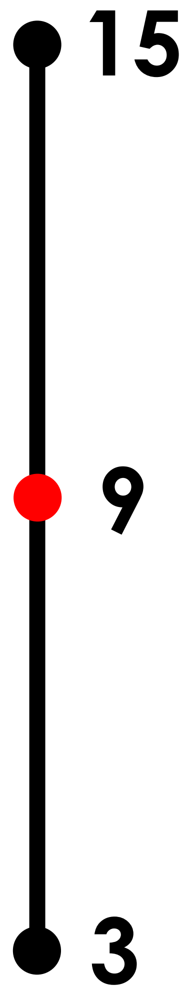
What is the midpoint of the line?



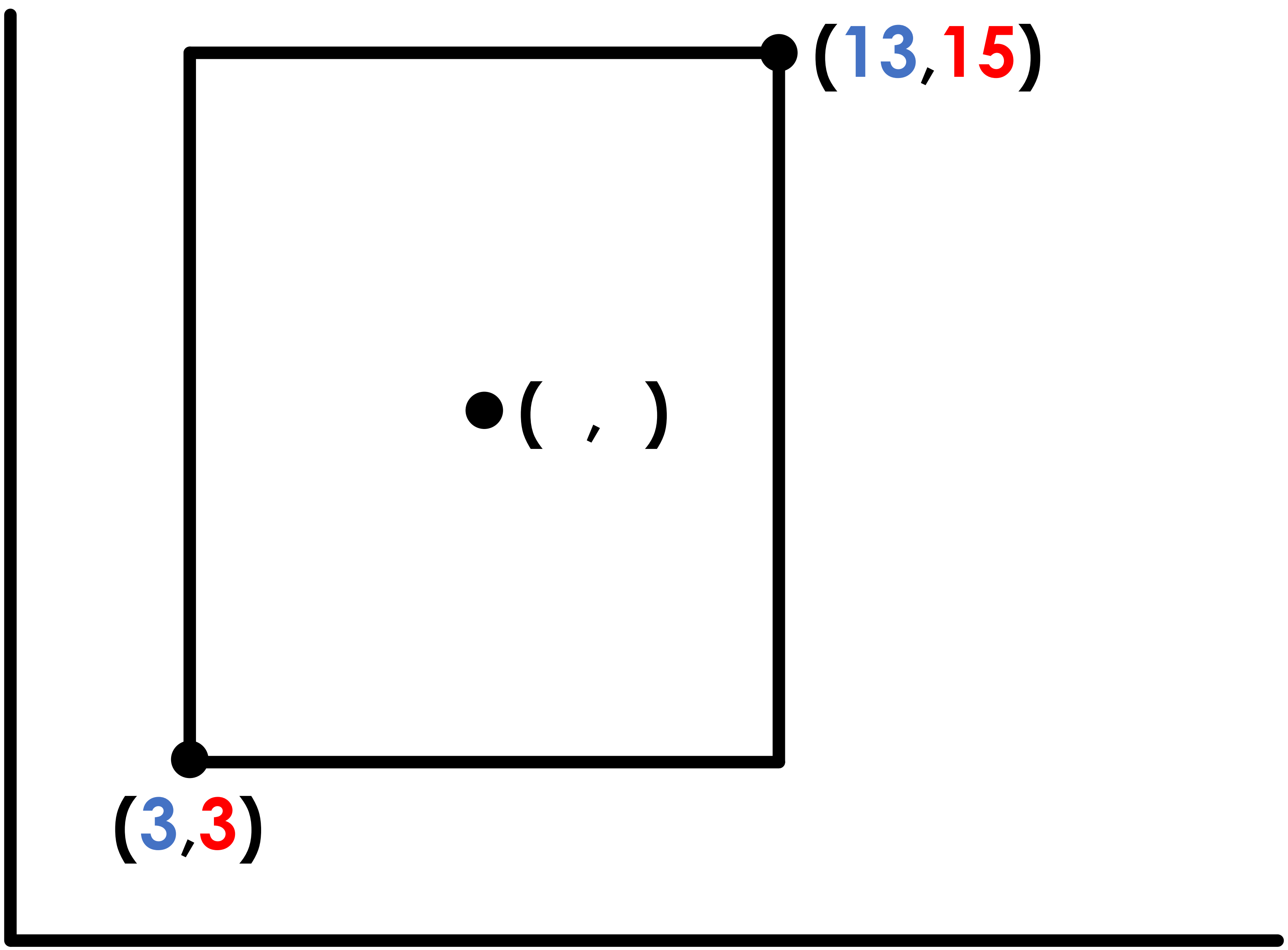
What is the midpoint of the line?



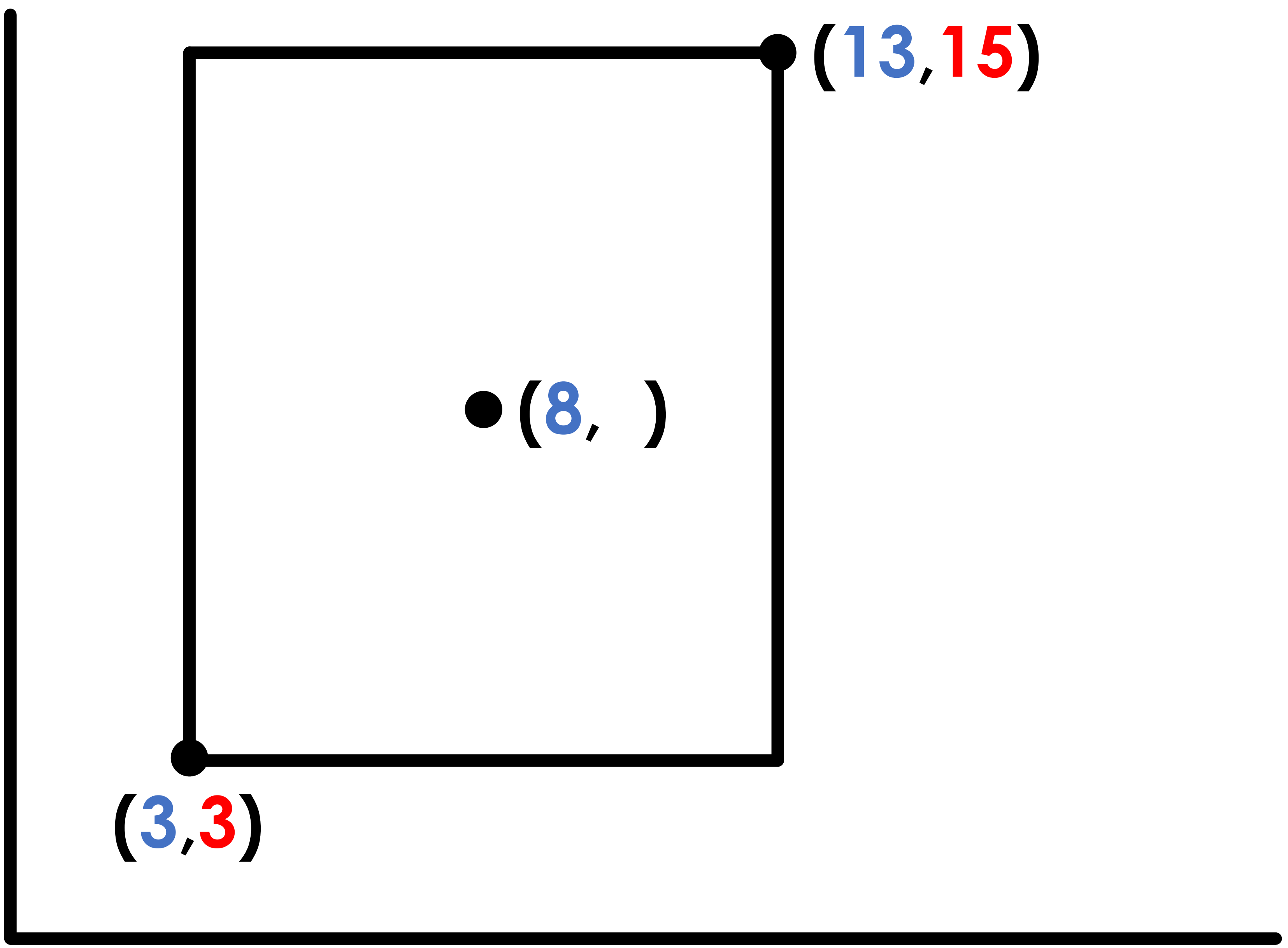
What is the midpoint of the line?



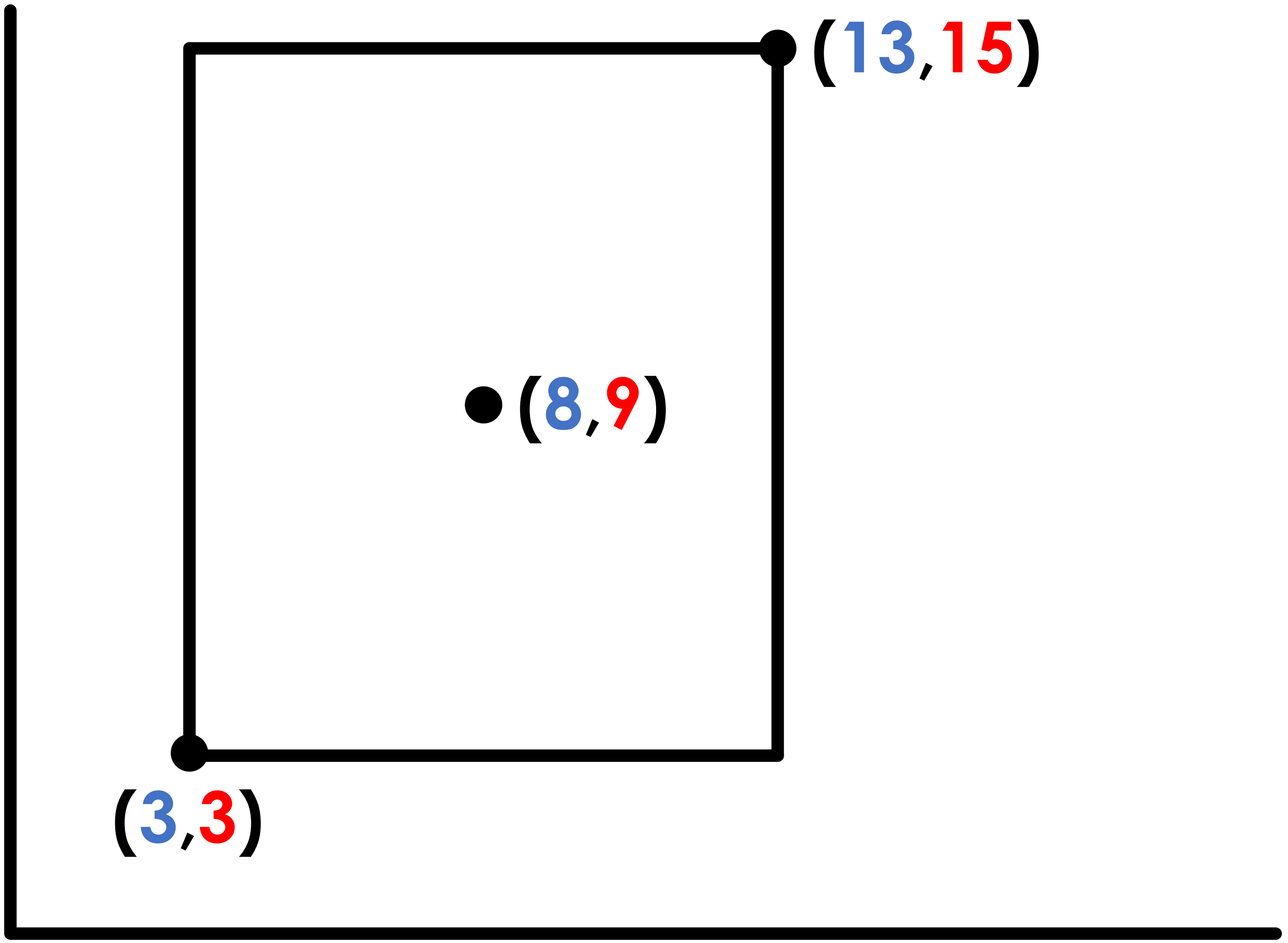
What is the midpoint of the rectangle?



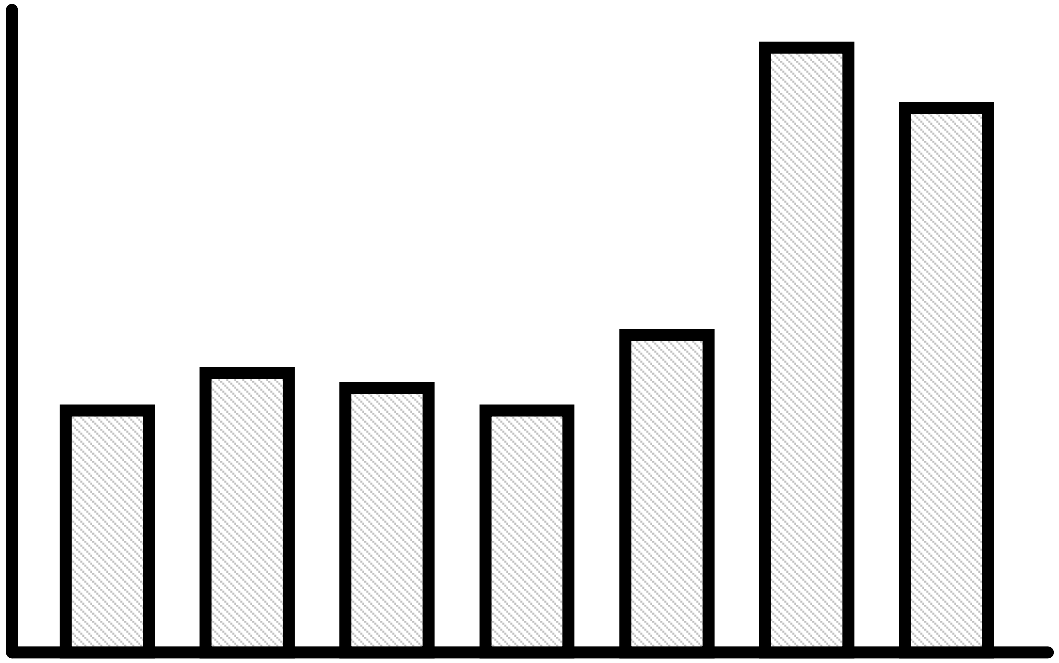
What is the midpoint of the rectangle?

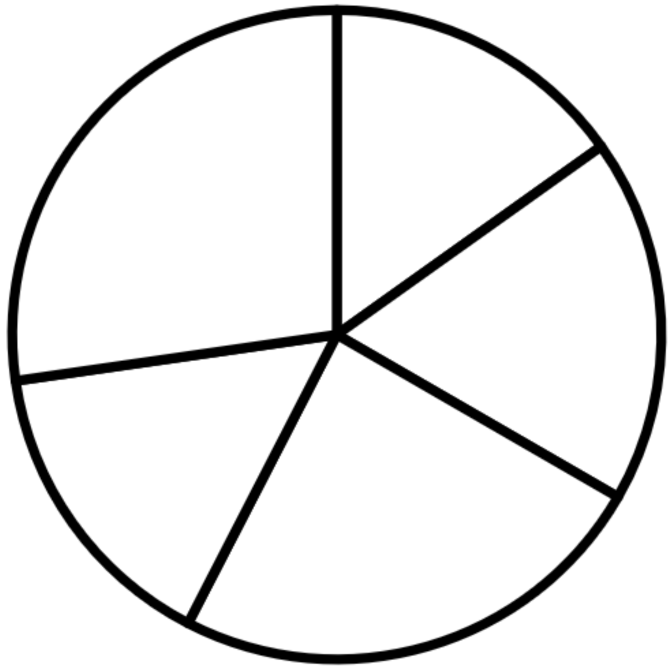


What is the midpoint of the rectangle?



Which of the graphs could show the number of people who attended a Zoo in one week?





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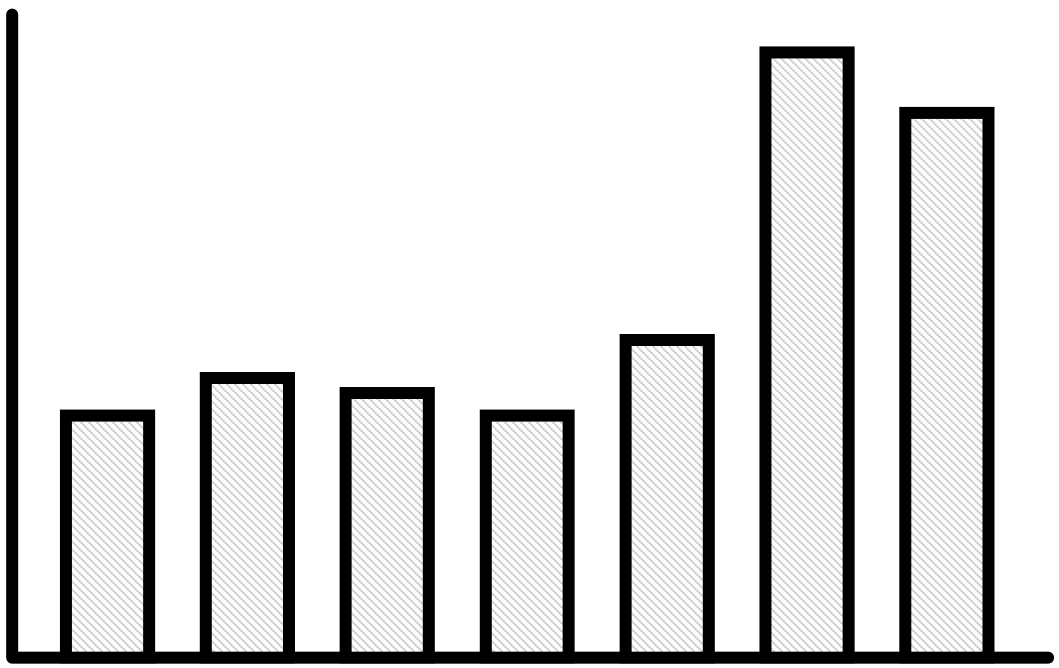
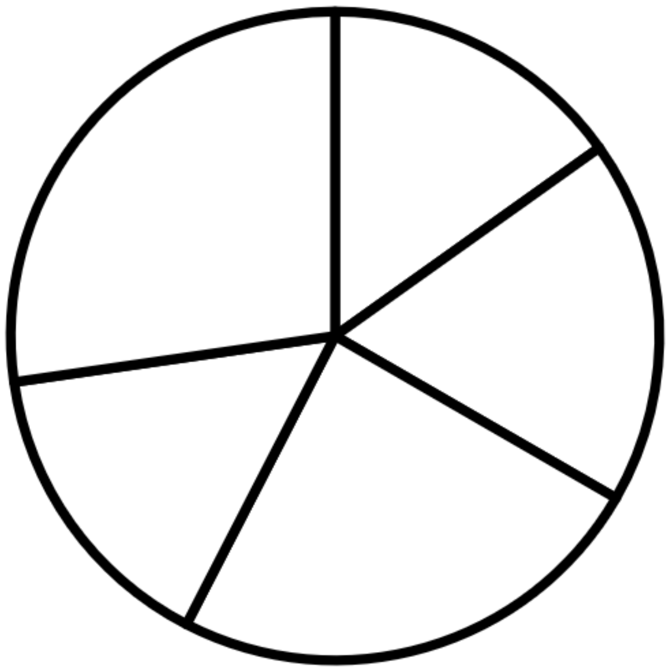
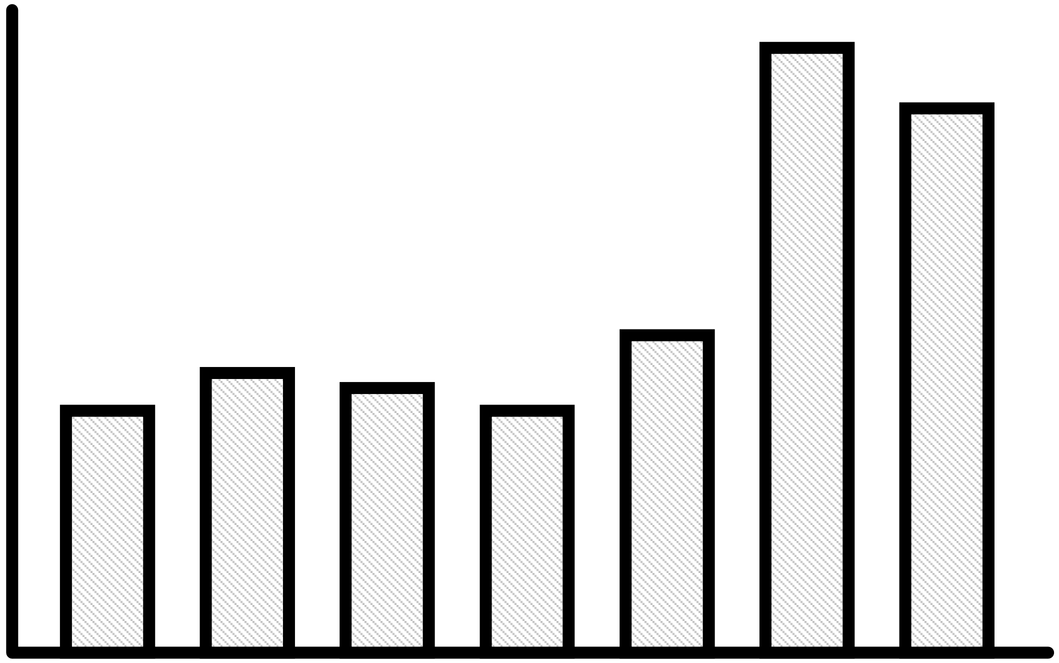


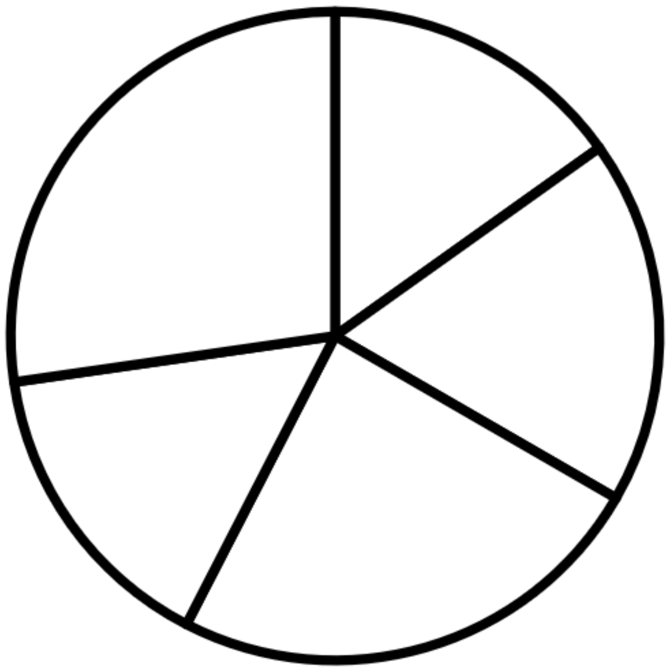


✓

Has 7 days, bar graph shows total visitors for each day

Which of the graphs could show the number of people who attended a Zoo in one week?

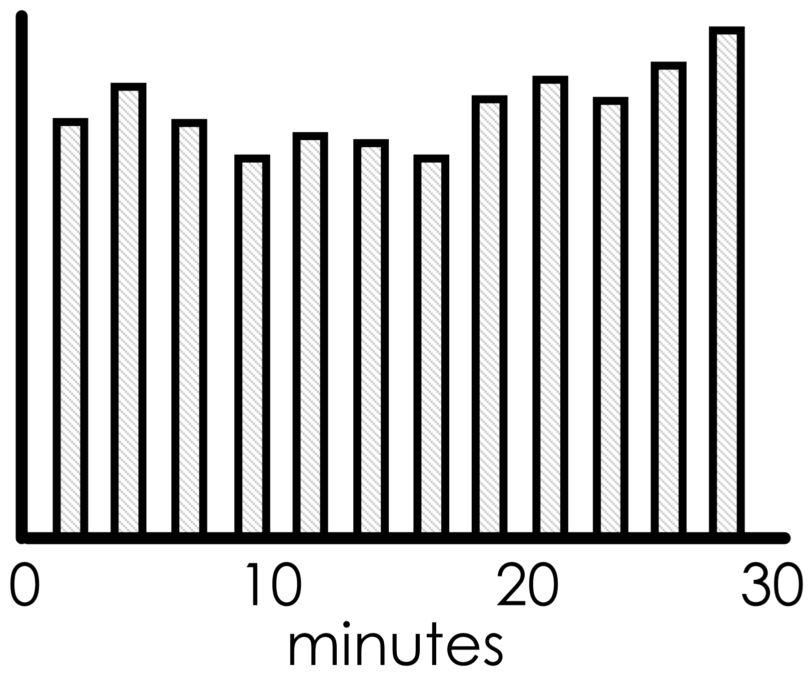


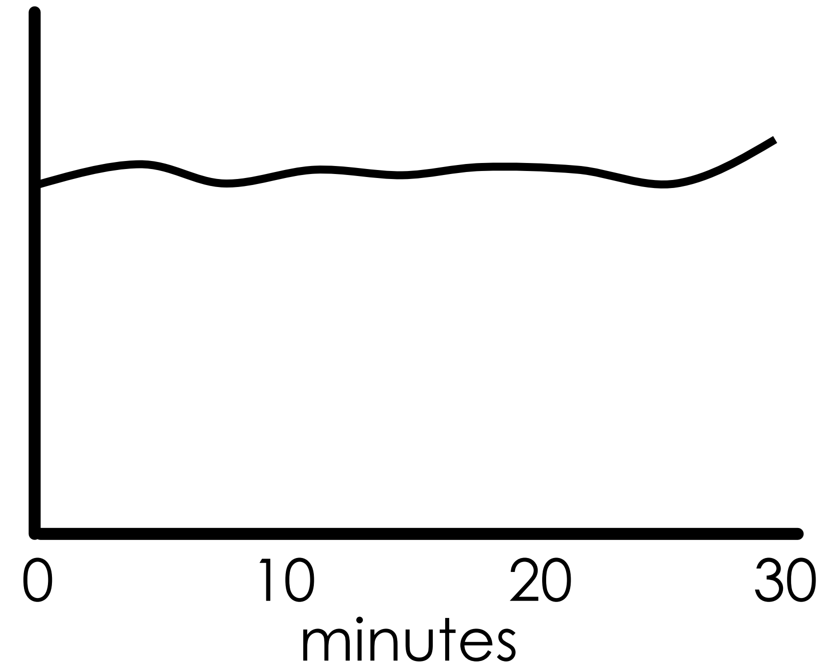


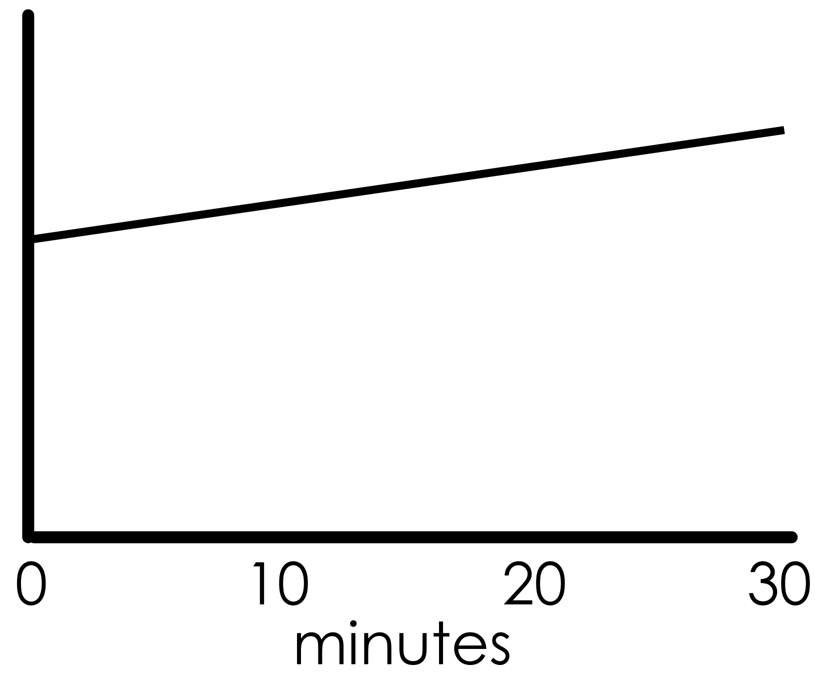
Has 7 days, bar graph shows total visitors for each day

Only 5 sections, pie chart not as easy to read the value of each section

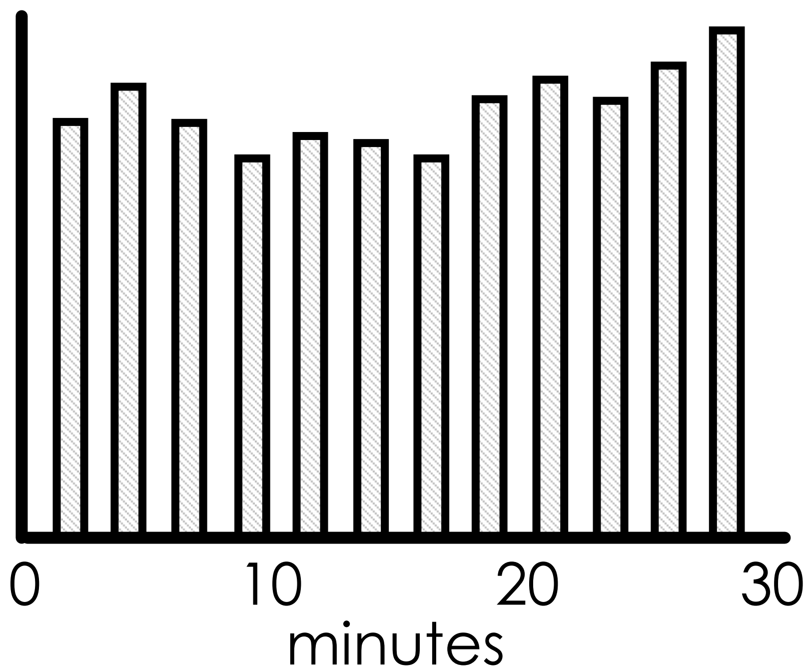
Which of the graphs could show the speed of a runner in a 5km race?

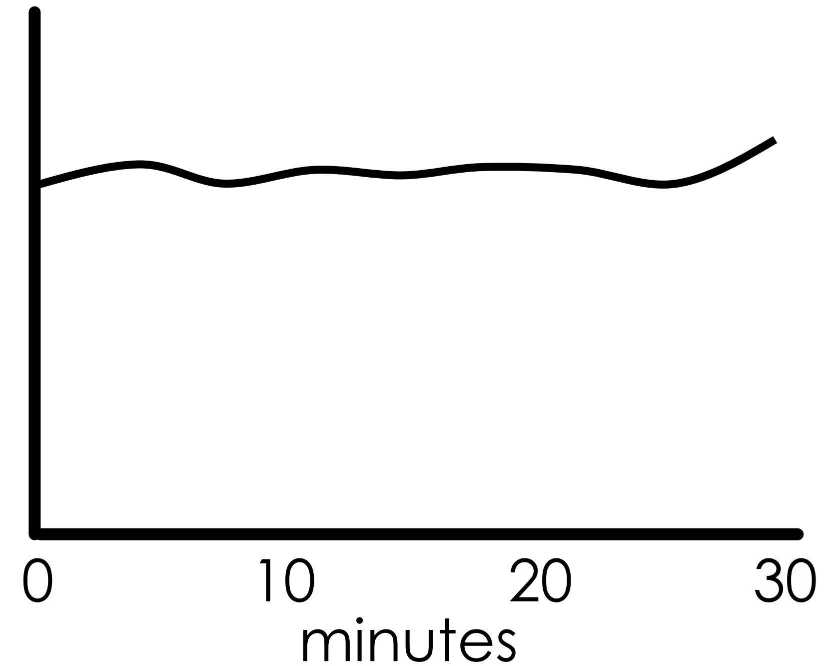






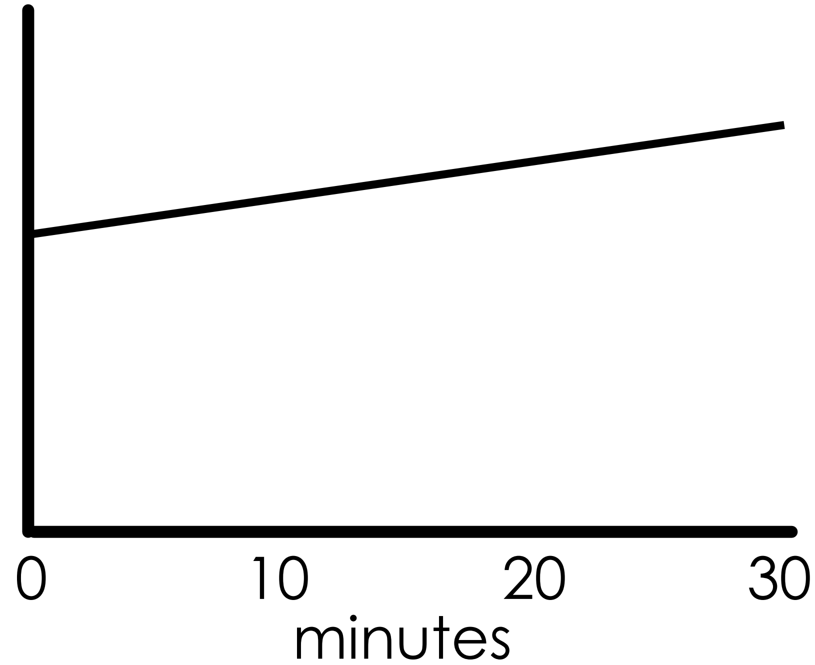
Which of the graphs could show the speed of a runner in a 5km race?





✗

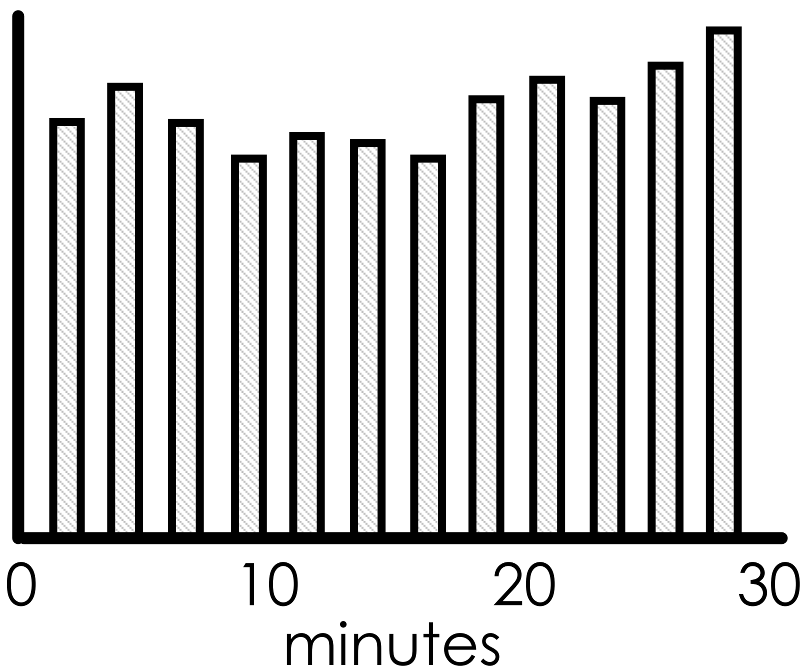
Speed constantly changes so not shown in bar graph

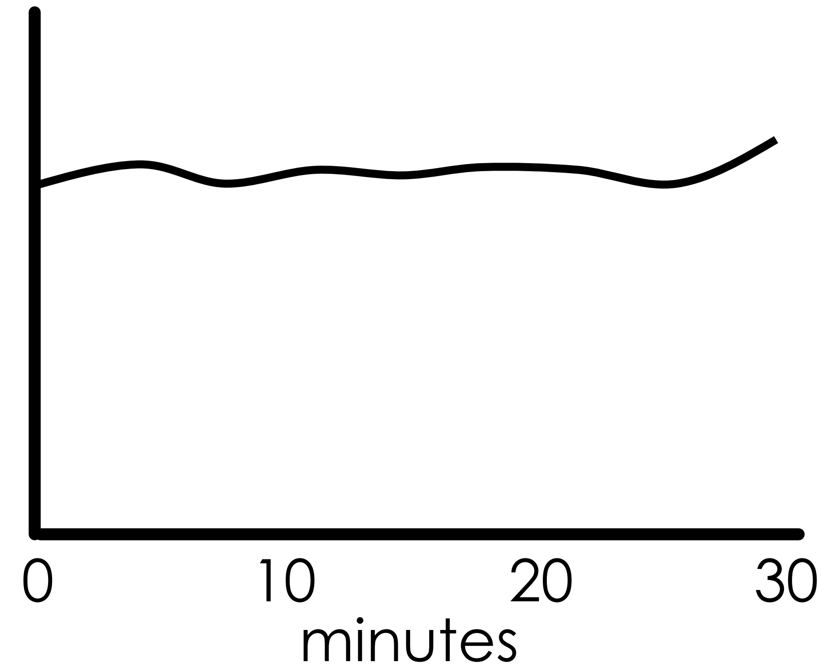


Interpreting Graphs

Build 1

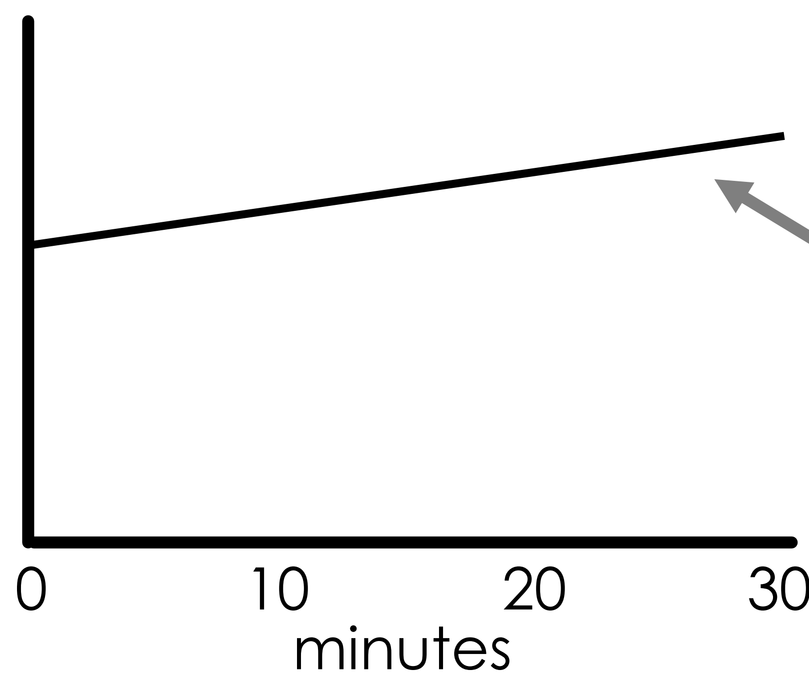
Which of the graphs could show the speed of a runner in a 5km race?





✗

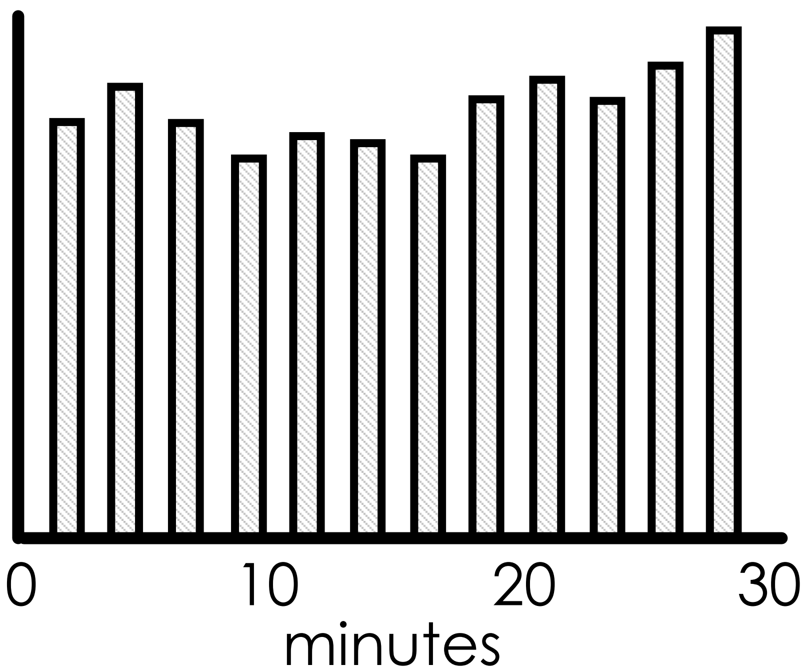
Speed constantly changes so not shown in bar graph

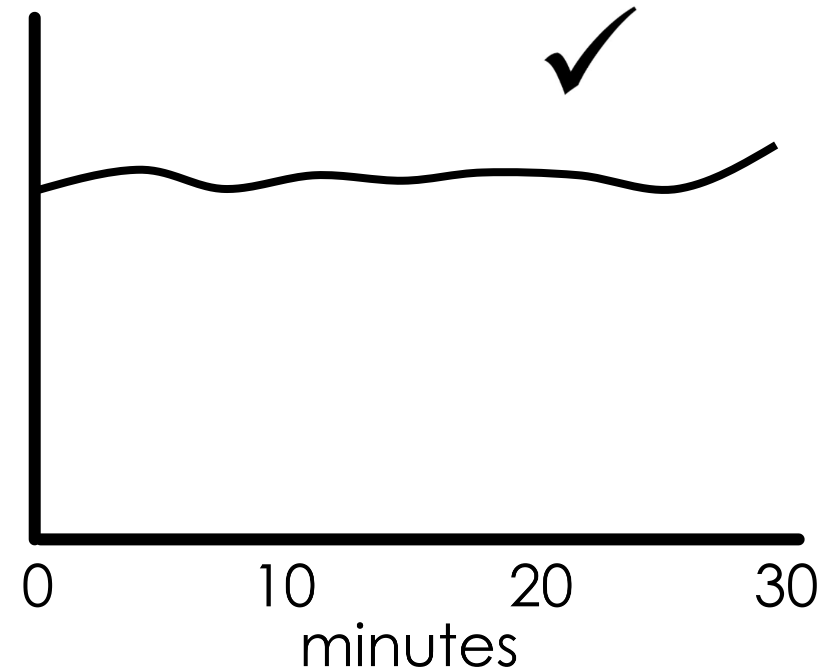


✗

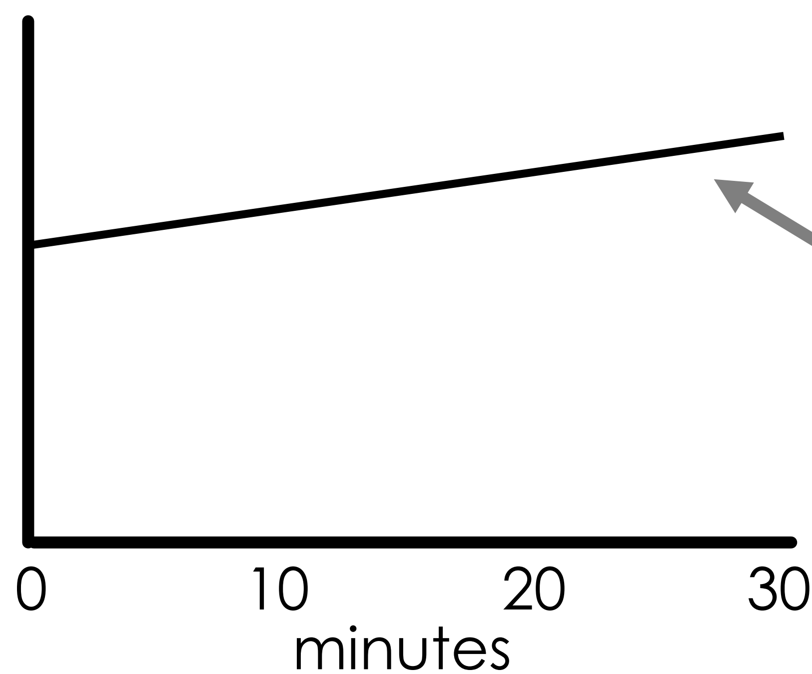
Speed of runner not a straight line

Which of the graphs could show the speed of a runner in a 5km race?



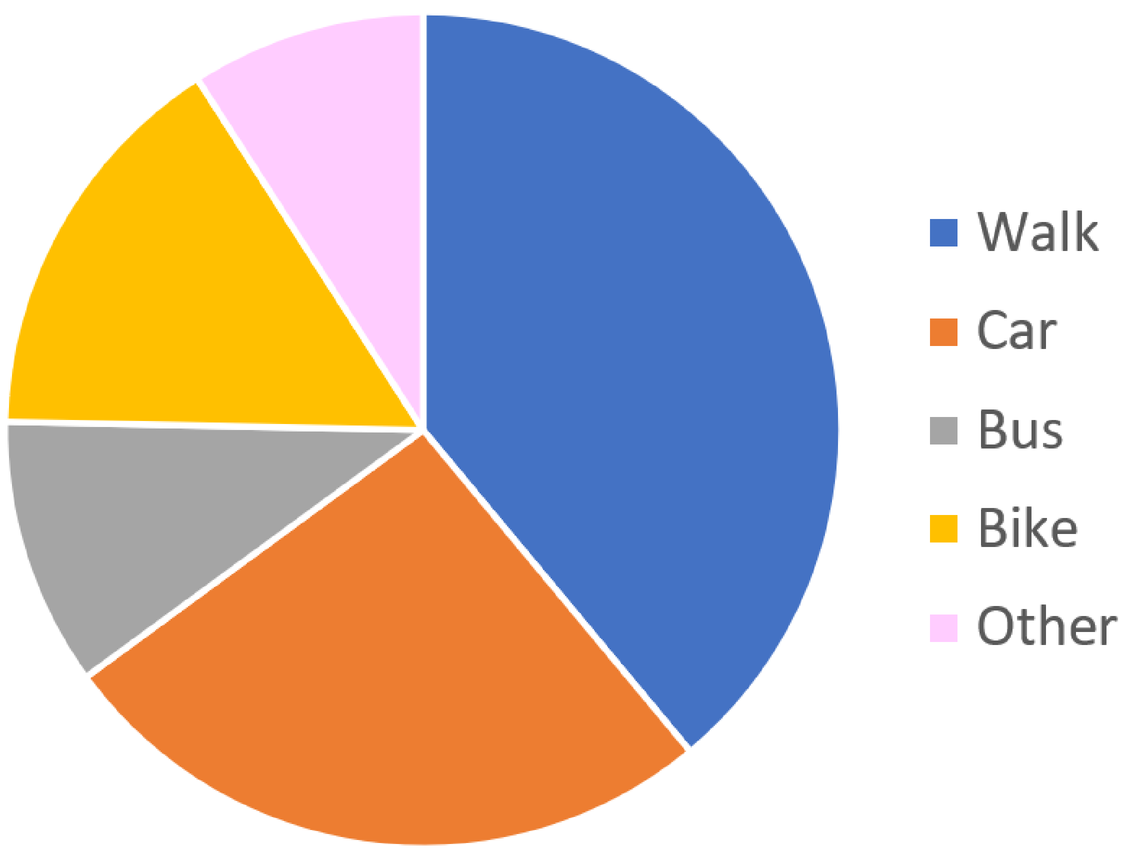


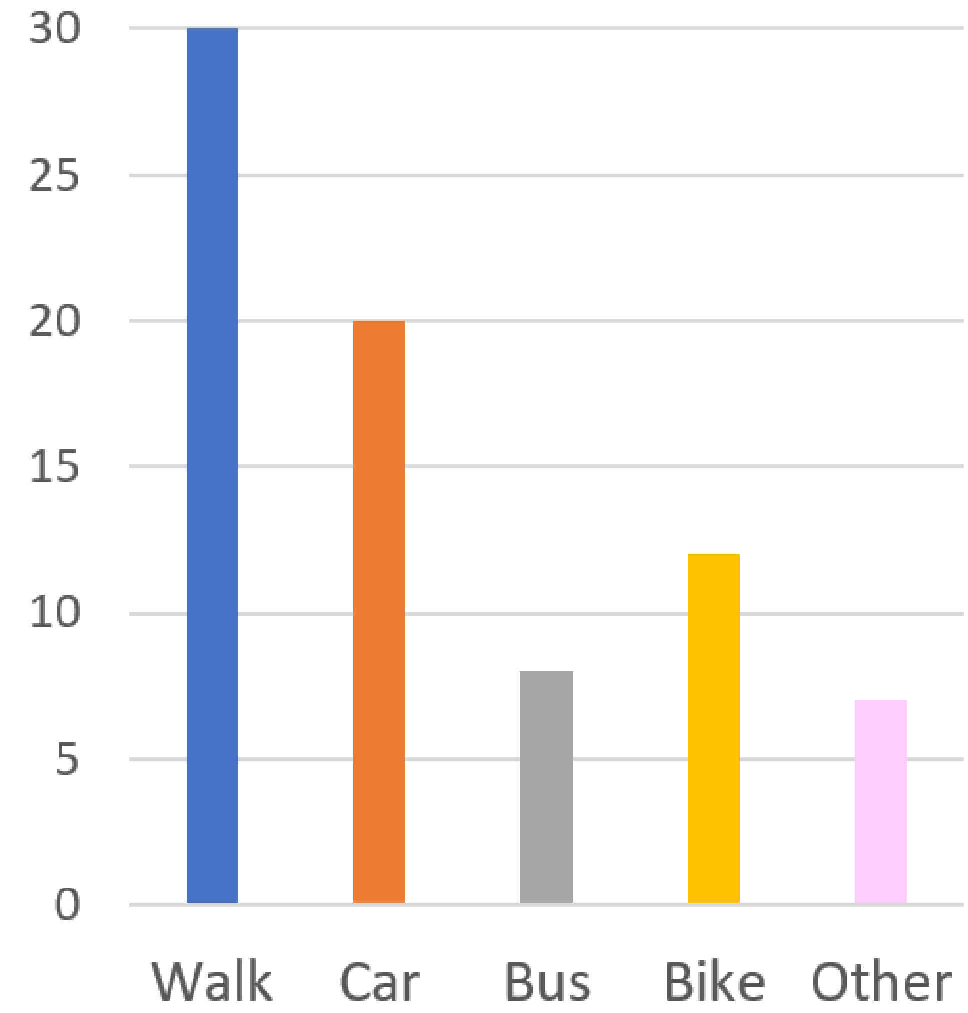
Speed constantly changes so not shown in bar graph



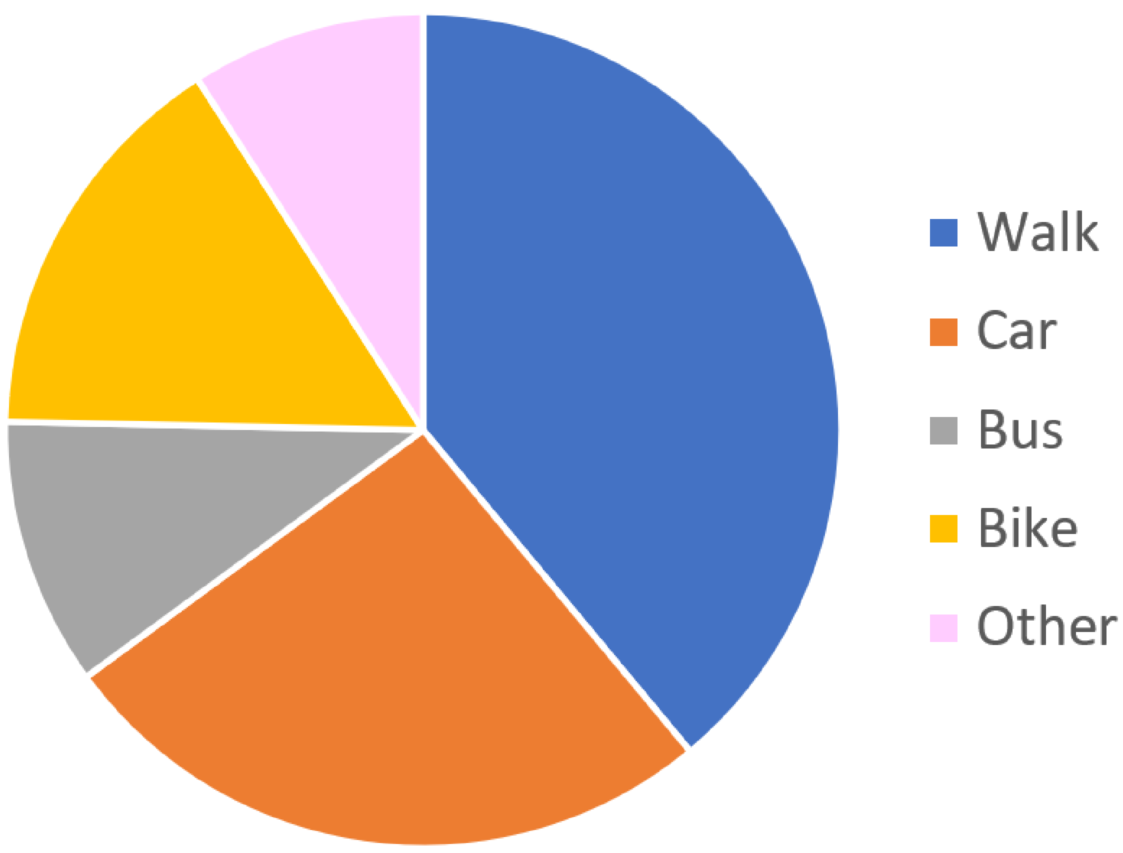
Speed of runner not a straight line

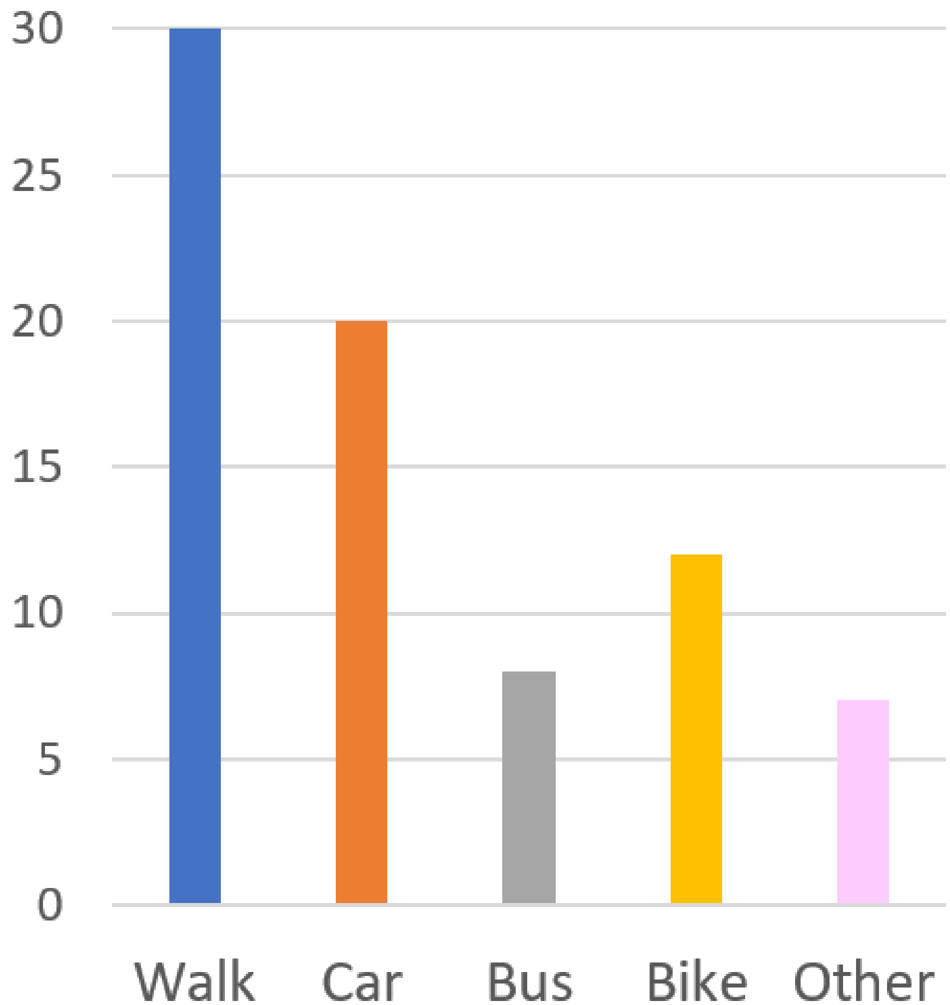
Which of the graphs could show the way children travel to school?





Which of the graphs could show the way children travel to school?

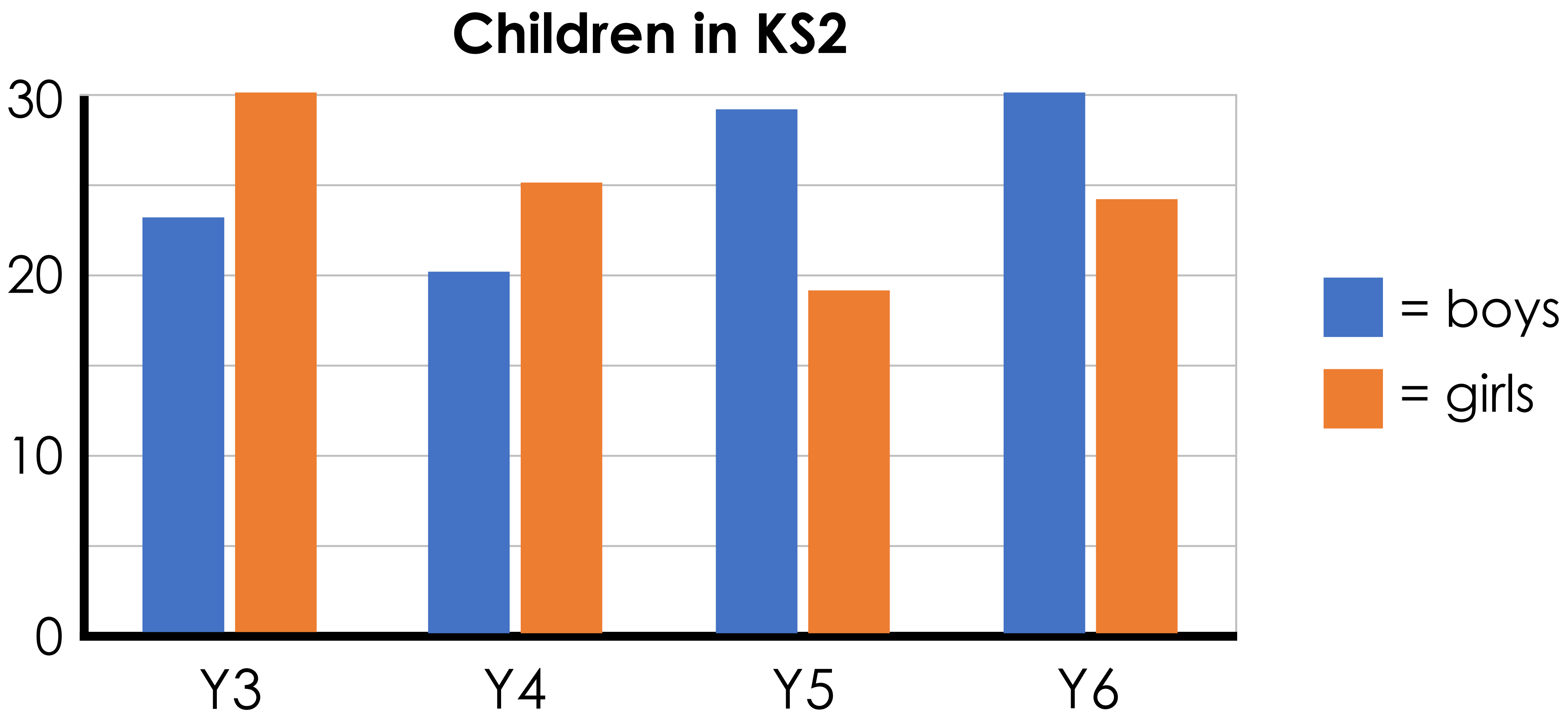




Either.

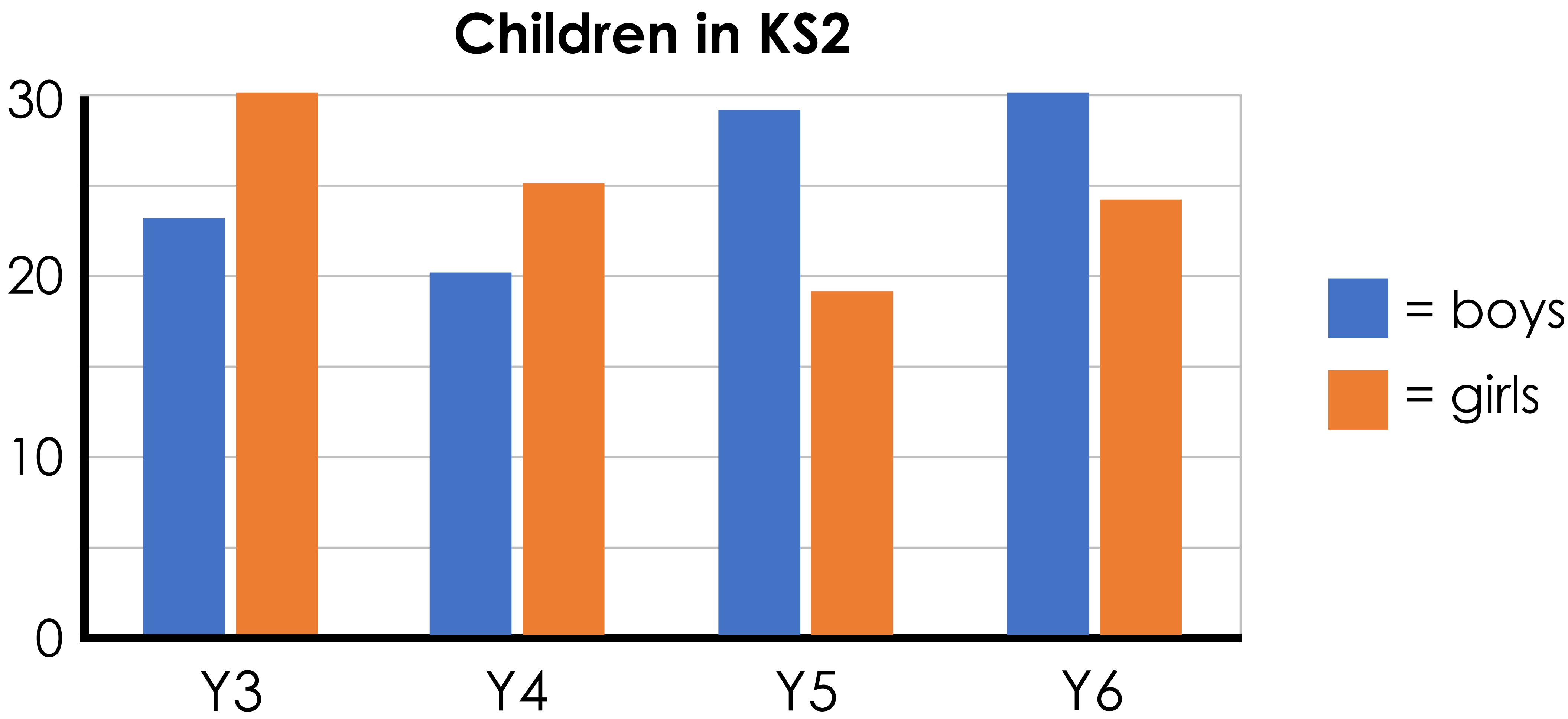
Pie chart makes the comparison between sections clear.

Easier to read group values from bar graph.


Children in KS2
30
20
10
0
Y3
Y4
Y5
Y6
= boys
= girls

Interpreting Graphs

Build 2

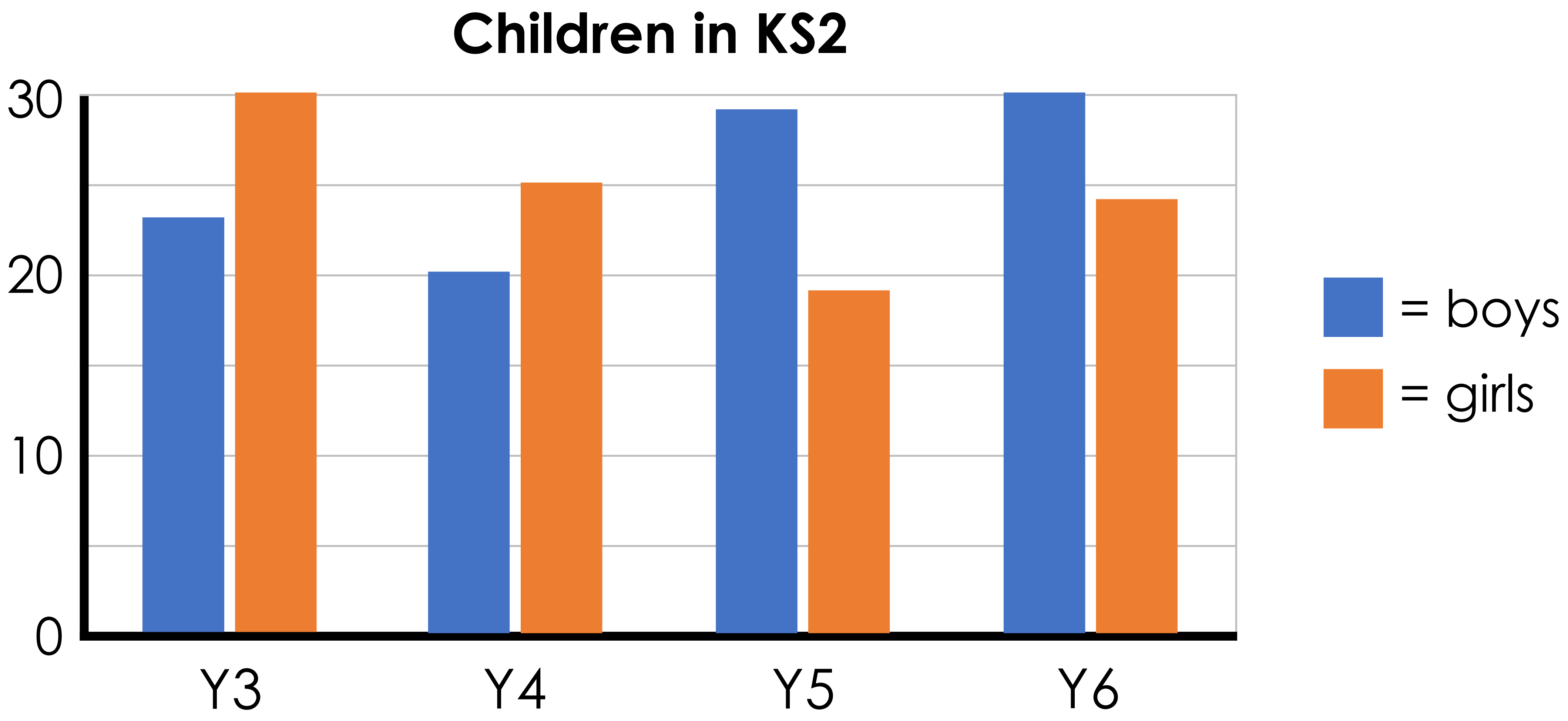


*To answer, read **1 bar***

What could the question be?

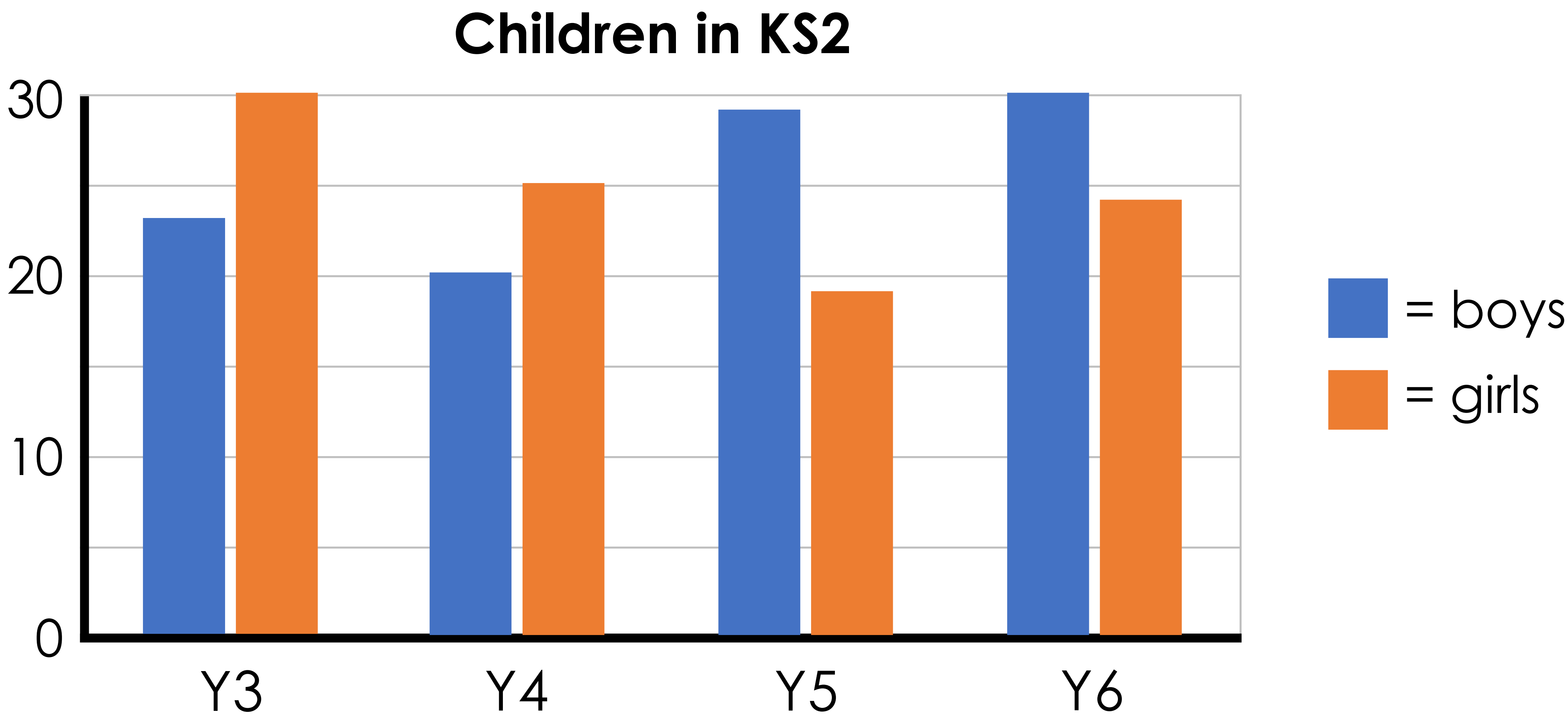
Interpreting Graphs

Build 2



How many boys in Year 5?

*To answer, read **1 bar***

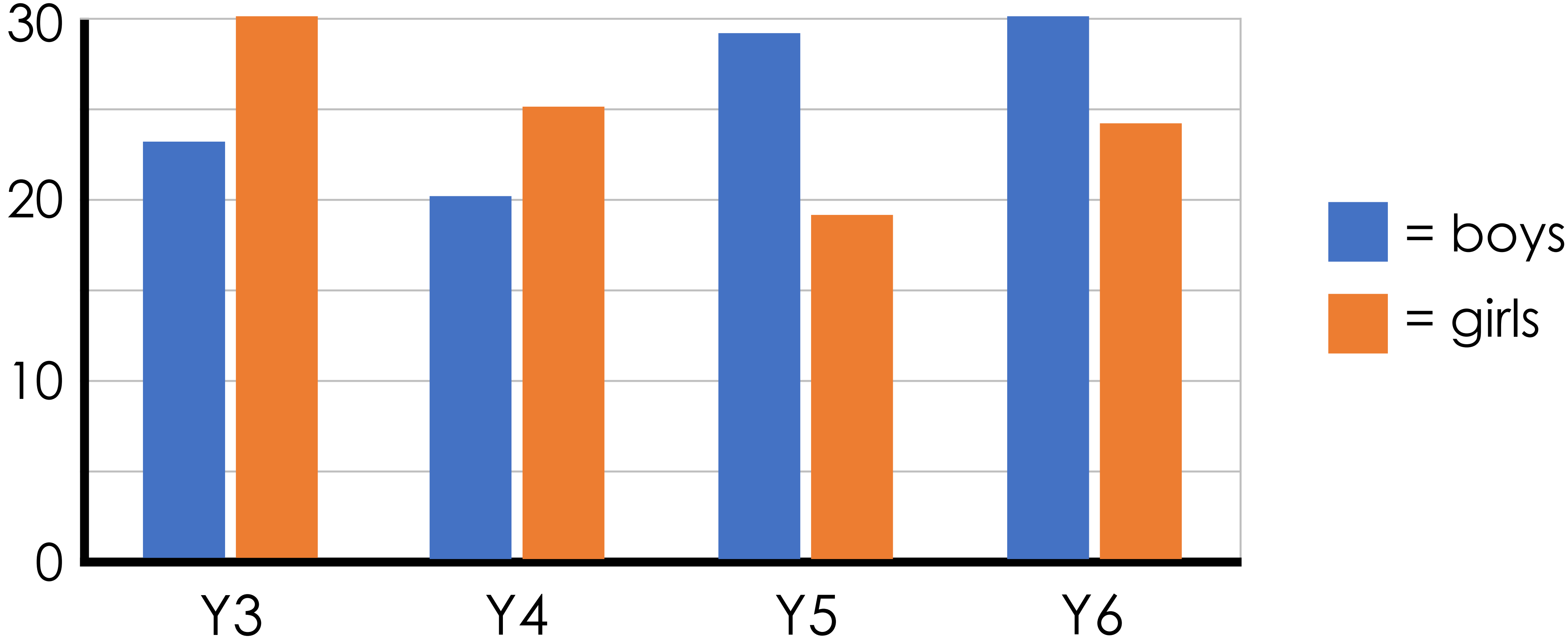


How many boys in Year 5?

29 boys

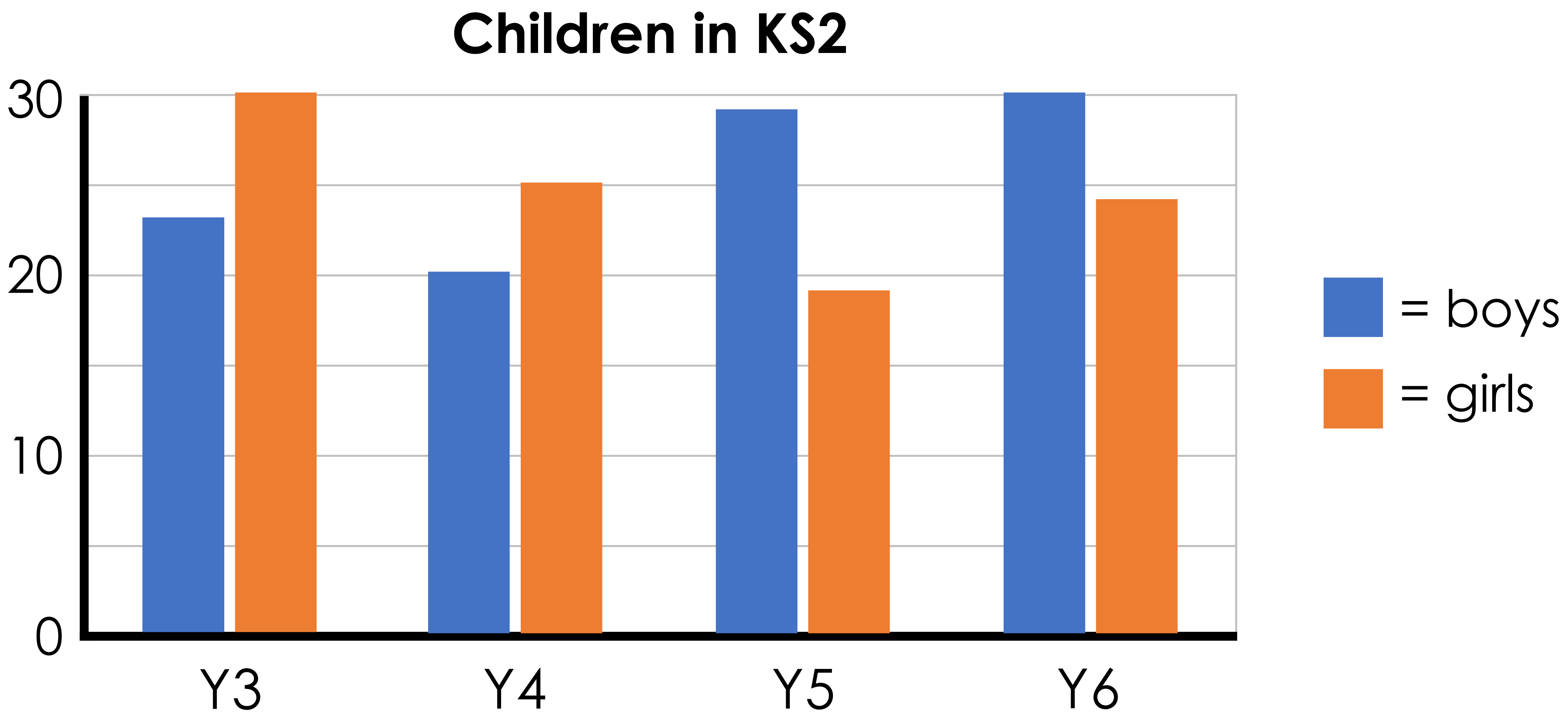
*To answer, read **1 bar***

Children in KS2



To answer, add ***2 bars***

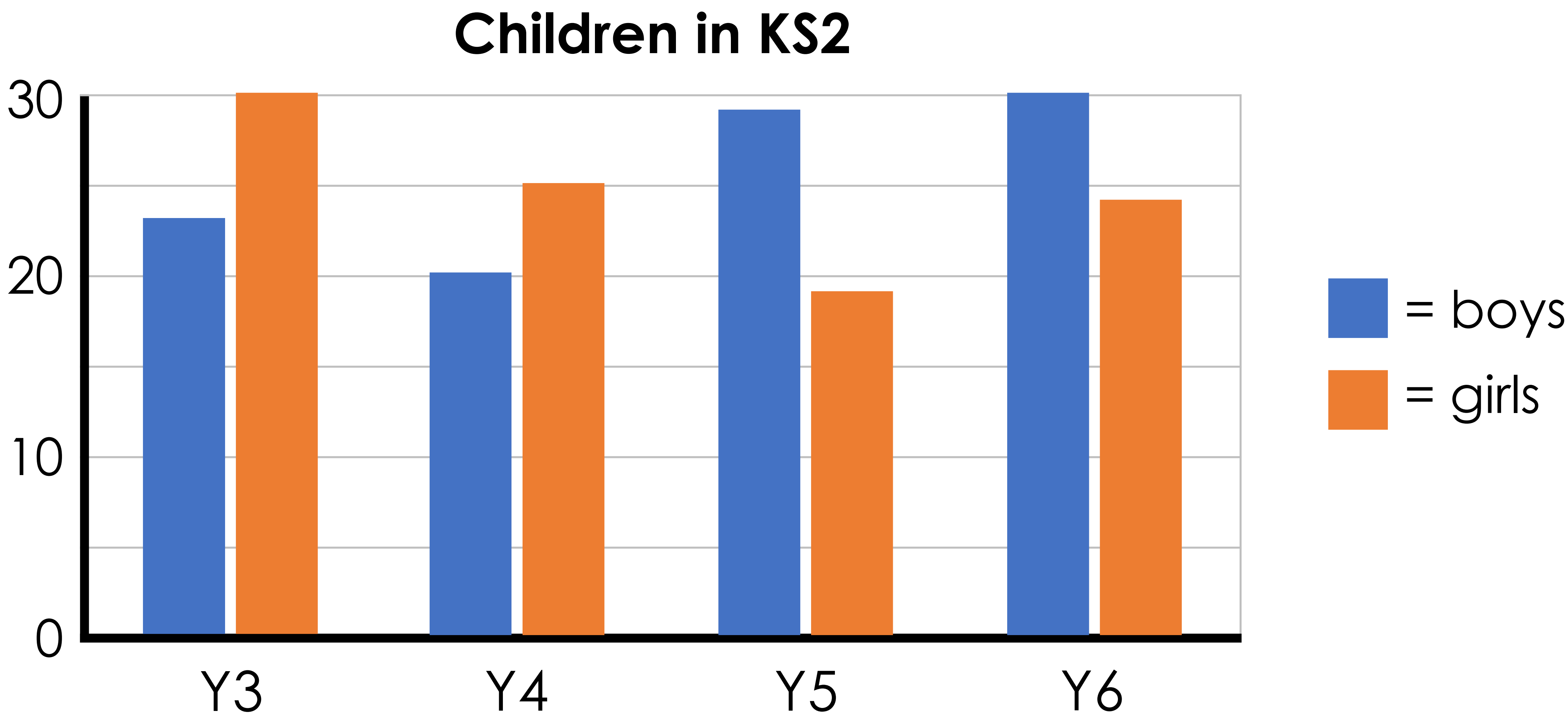
What could the question be?



How many children in Year 3?

To answer, add ***2 bars***

Build 2



How many children in Year 3?

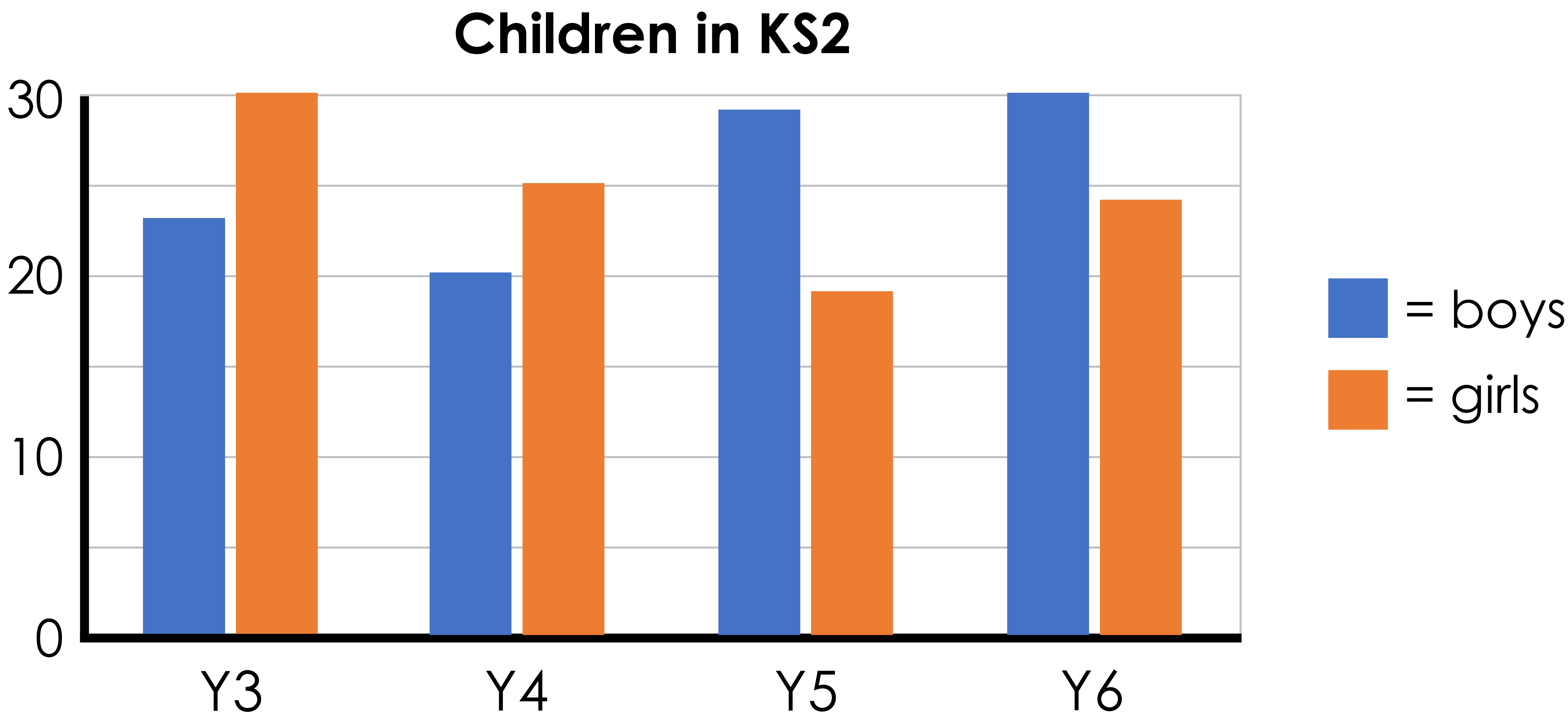
*To answer, add **2 bars***

30 + 23 =

53 children

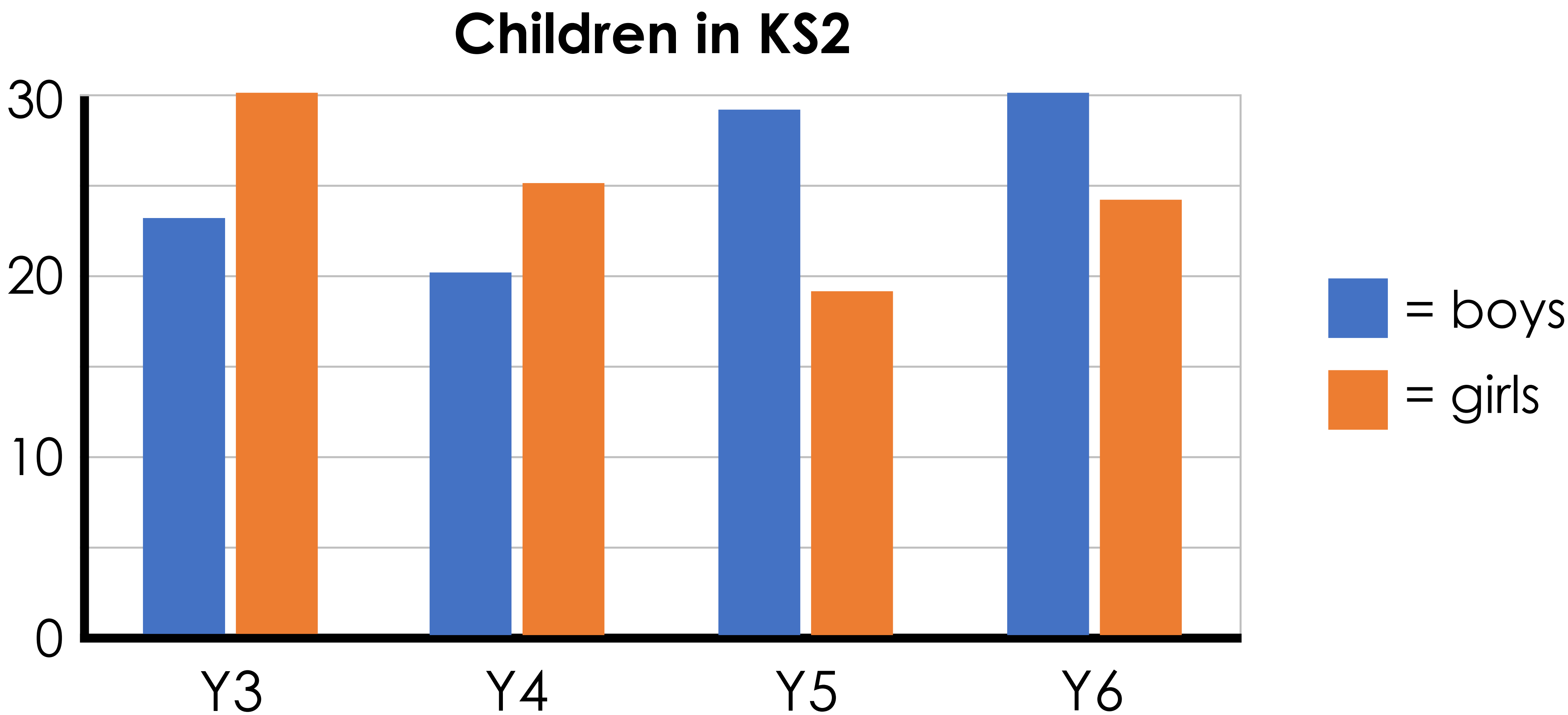
Interpreting Graphs

Build 2



*To answer, add **4 bars***

What could the question be?

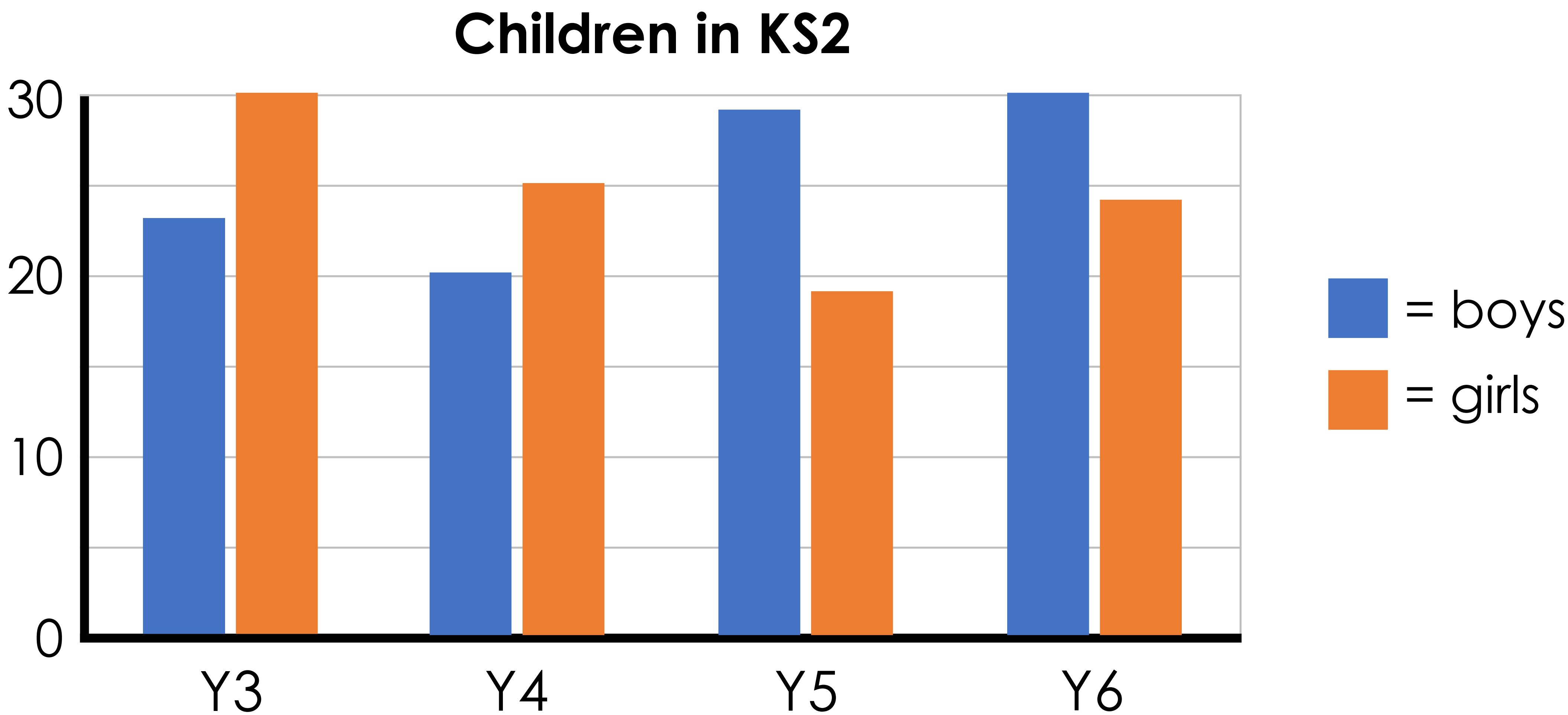


How many girls in KS2?

To answer, add ***4 bars***

Interpreting Graphs

Build 2

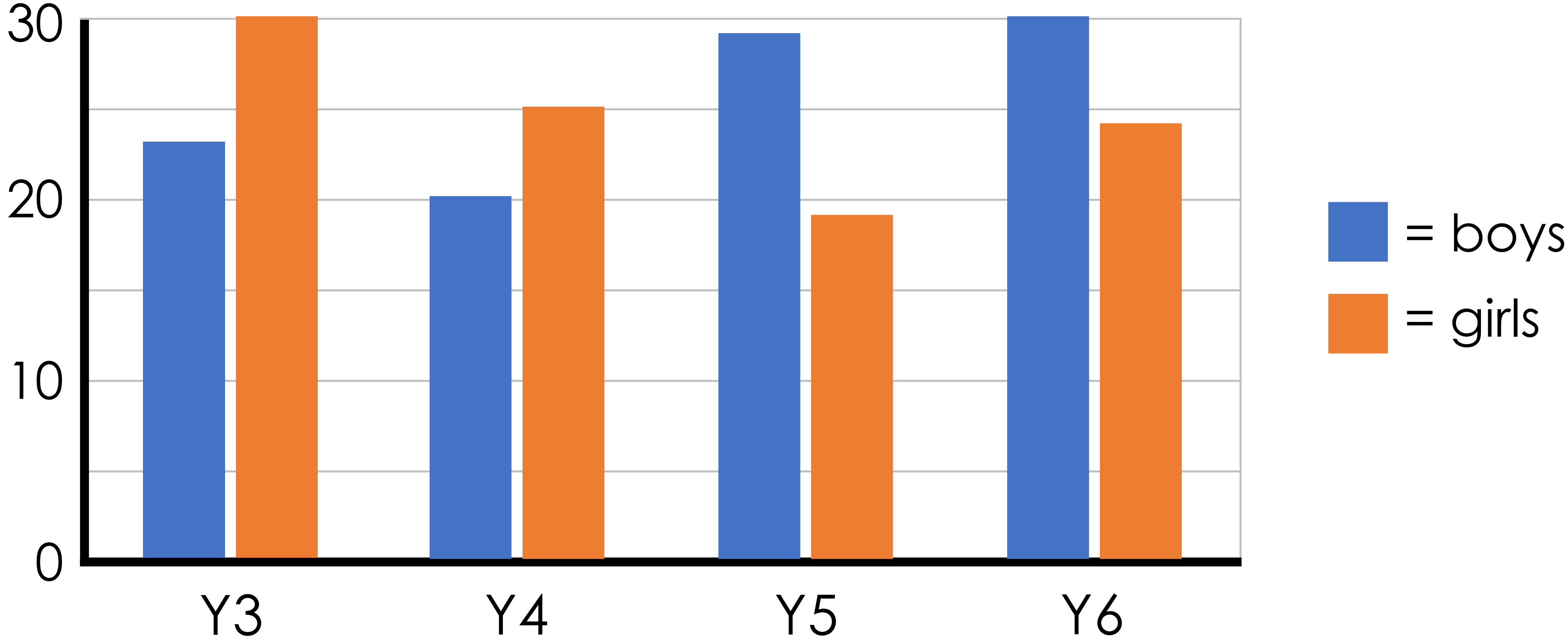


How many girls in KS2?

To answer, add ***4 bars***

30 + 25 + 19 + 24
= 98 girls

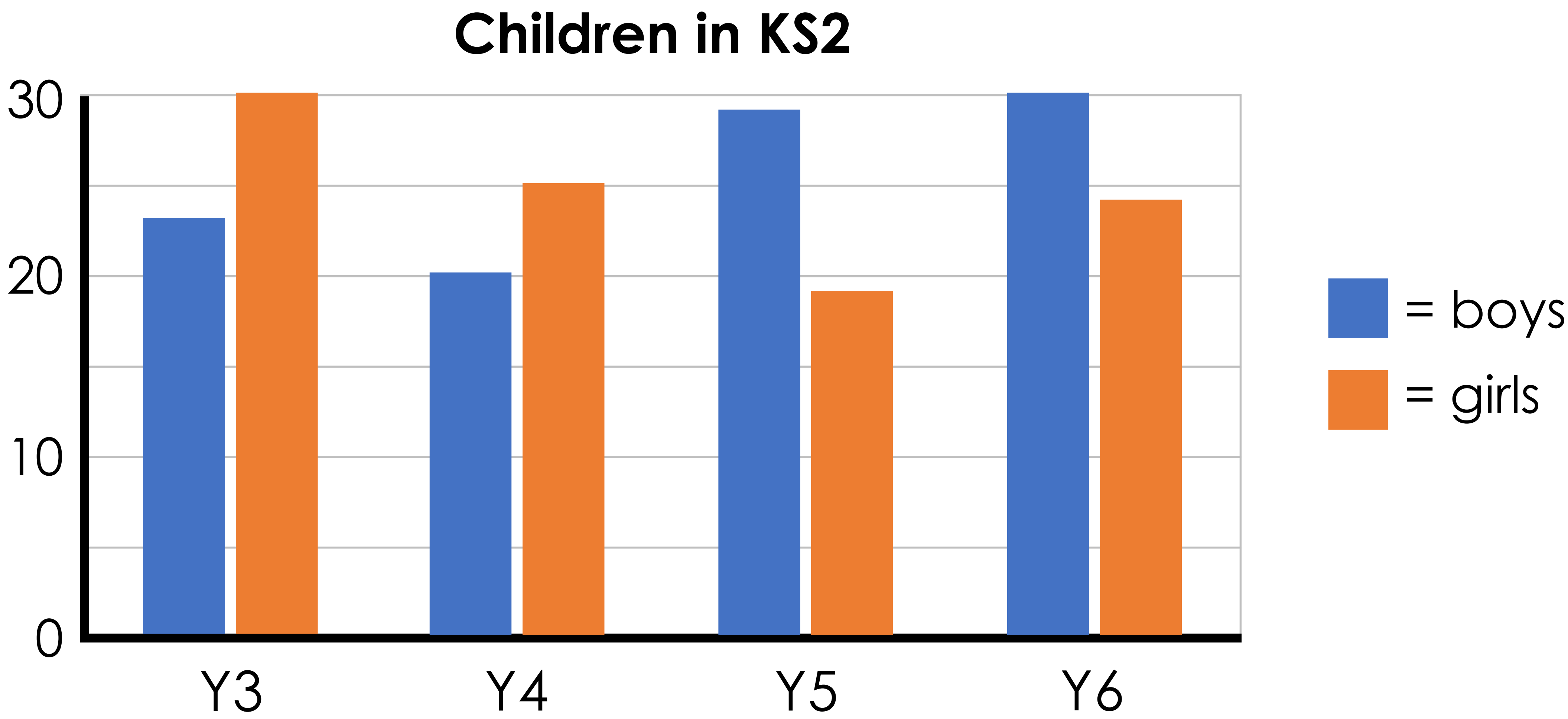
Children in KS2



*To answer, calculate the difference between **2 bars***

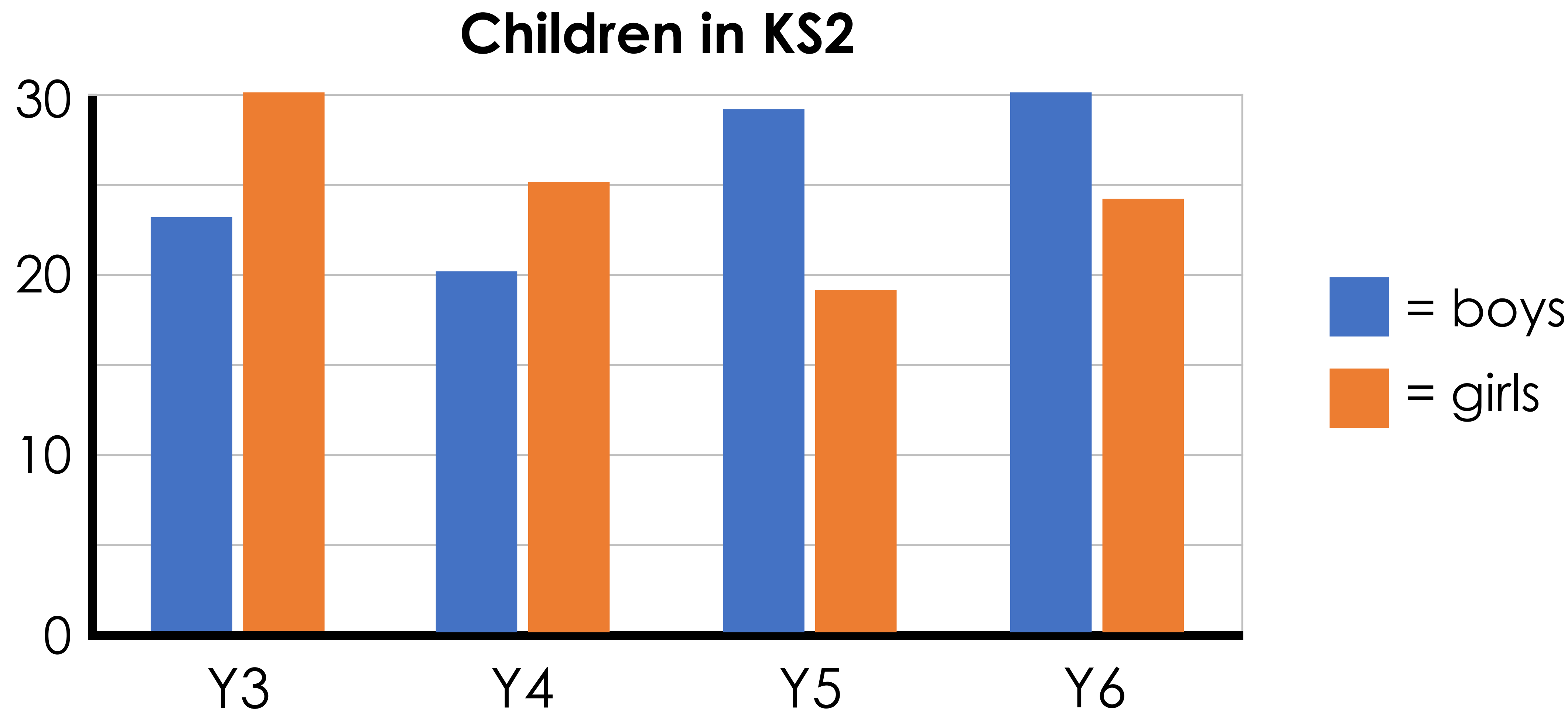
What could the question be?

Build 2



How many more boys in Y5 than Y4?

To answer, calculate the difference between ***2 bars***



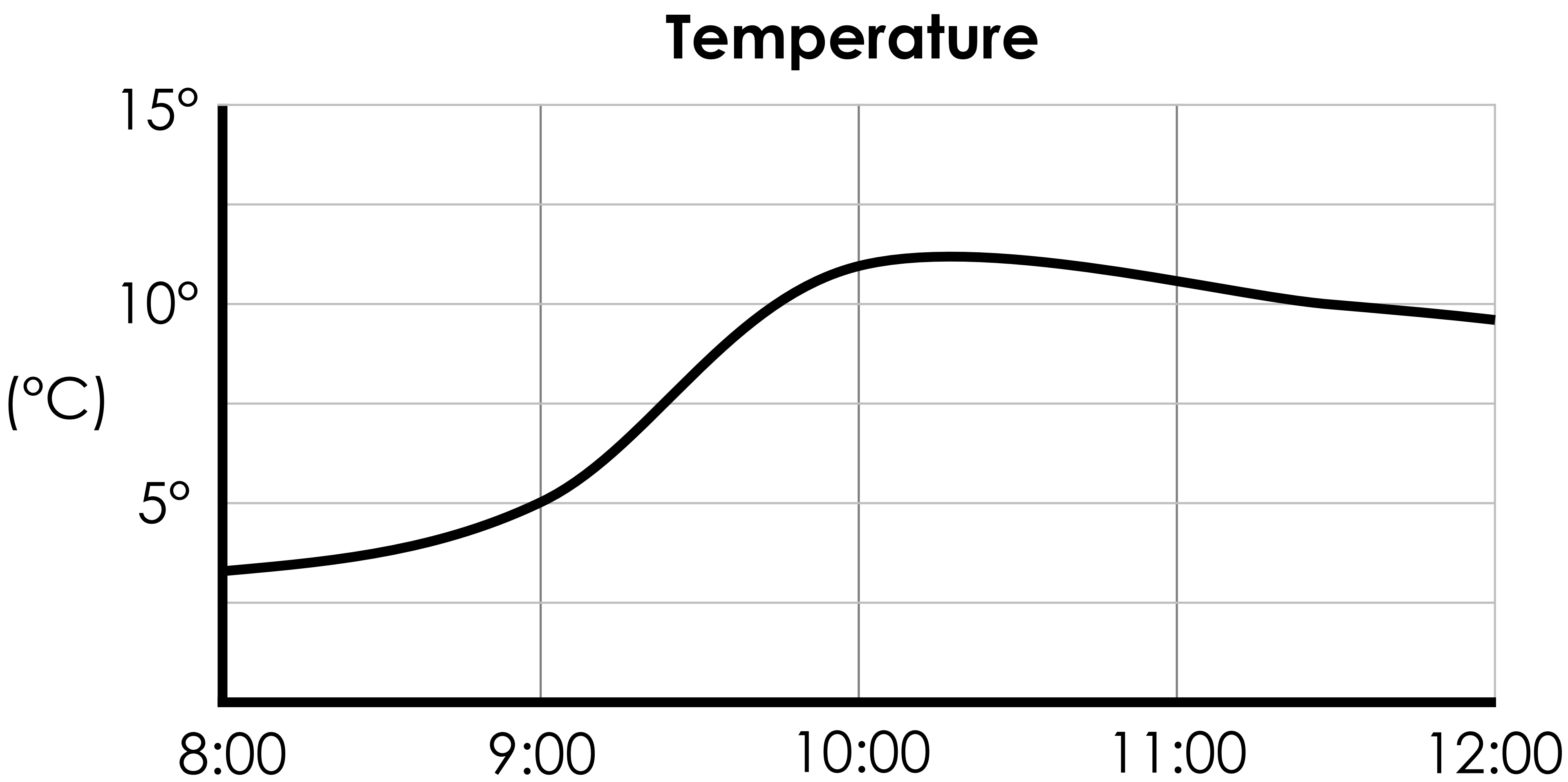
How many more boys in Y5 than Y4?

*To answer, calculate the difference between **2 bars***

29 – 20 = 9 more

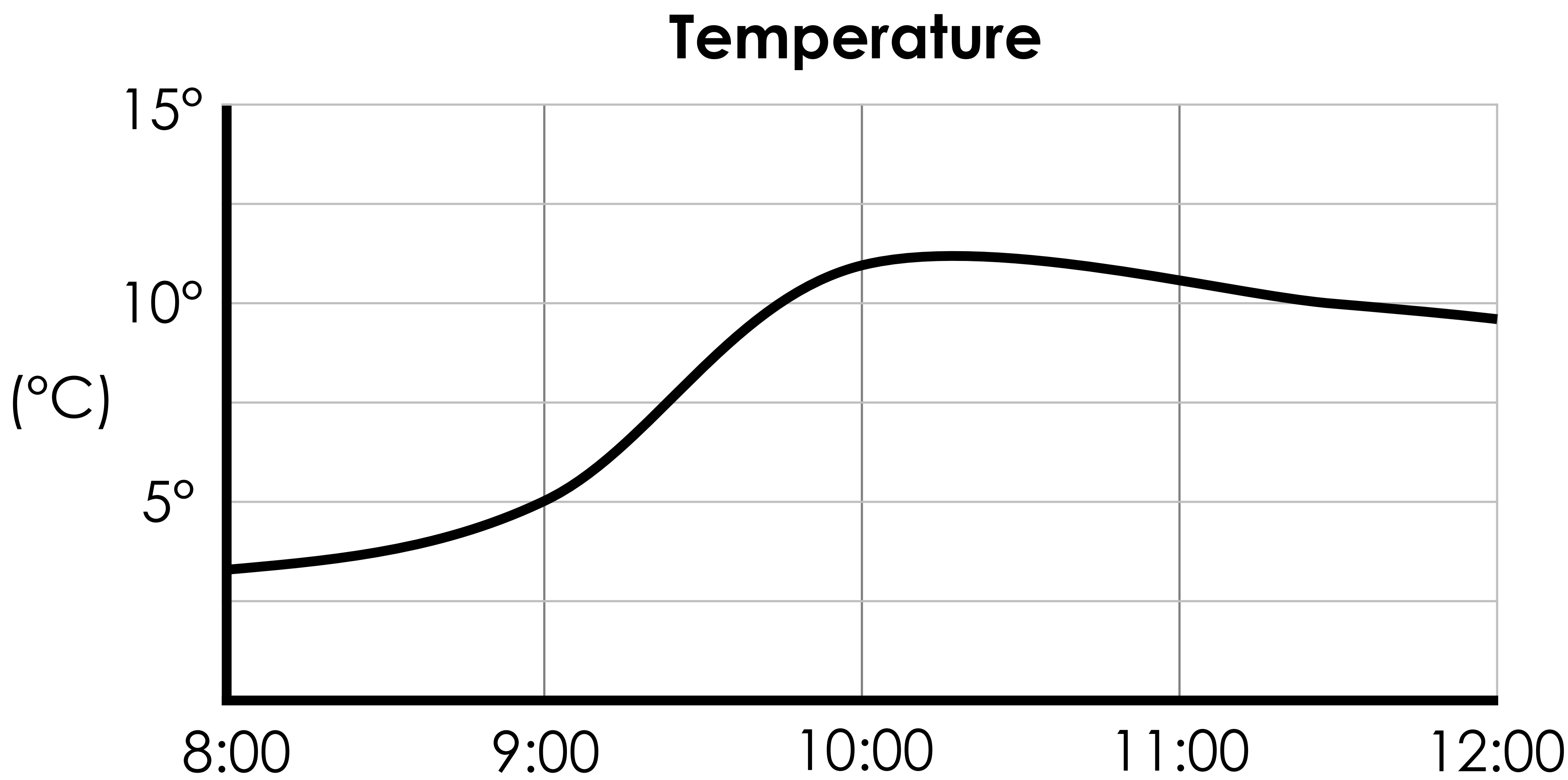
Interpreting Graphs

Build 3



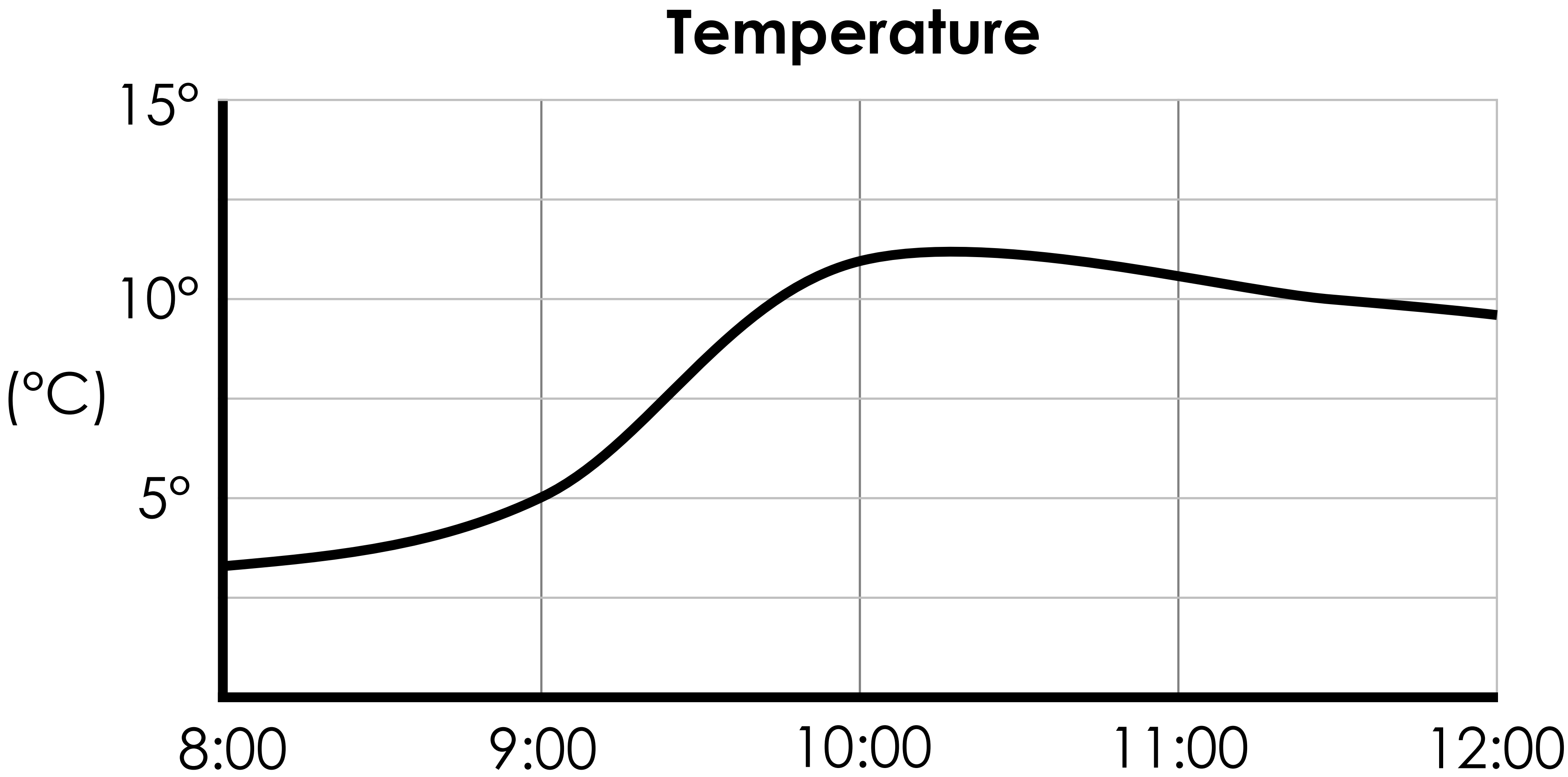
Interpreting Graphs

Build 3



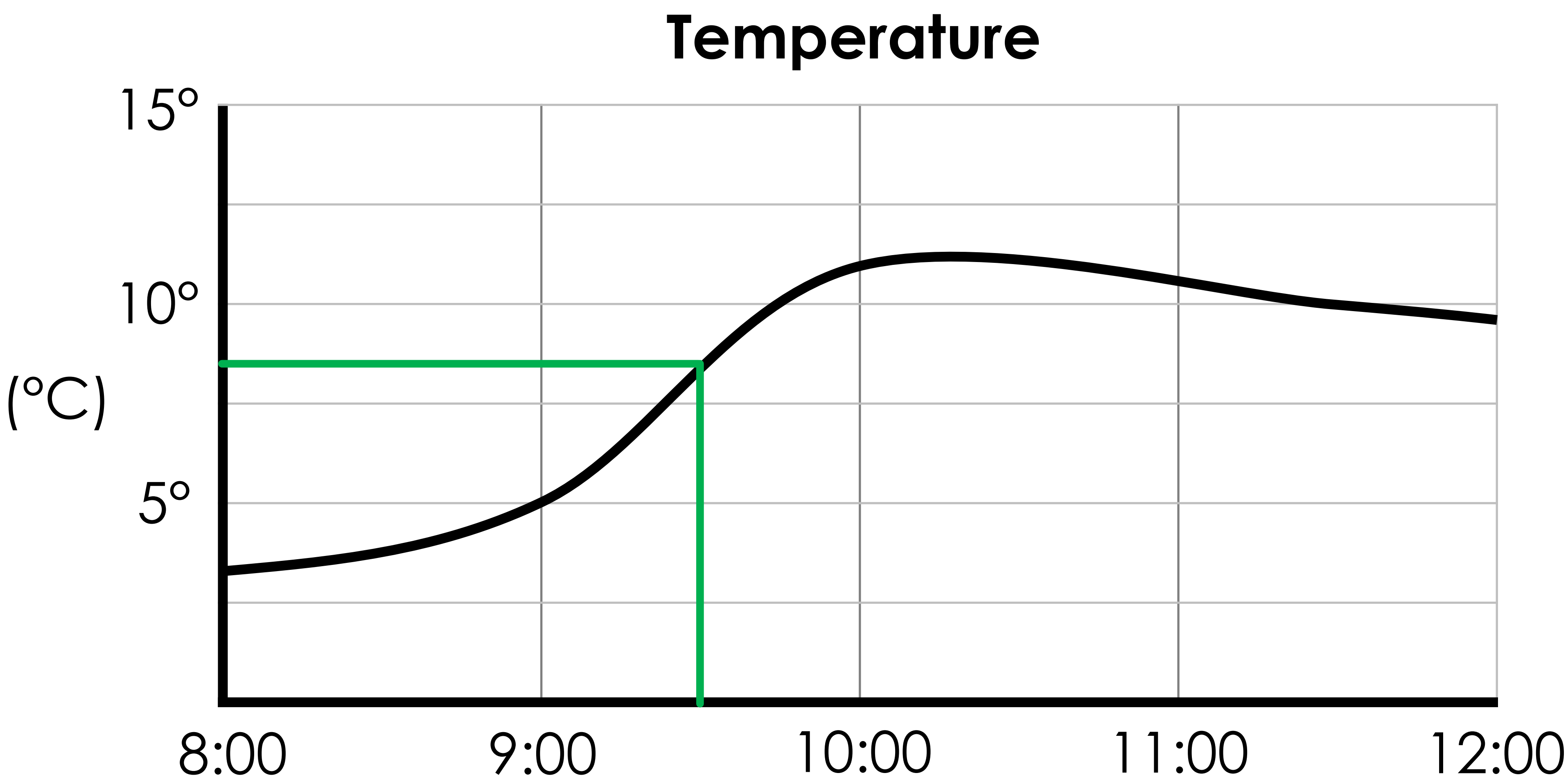
To answer, take ***1 reading***

What could the question be?



What was the temperature at 9:30?

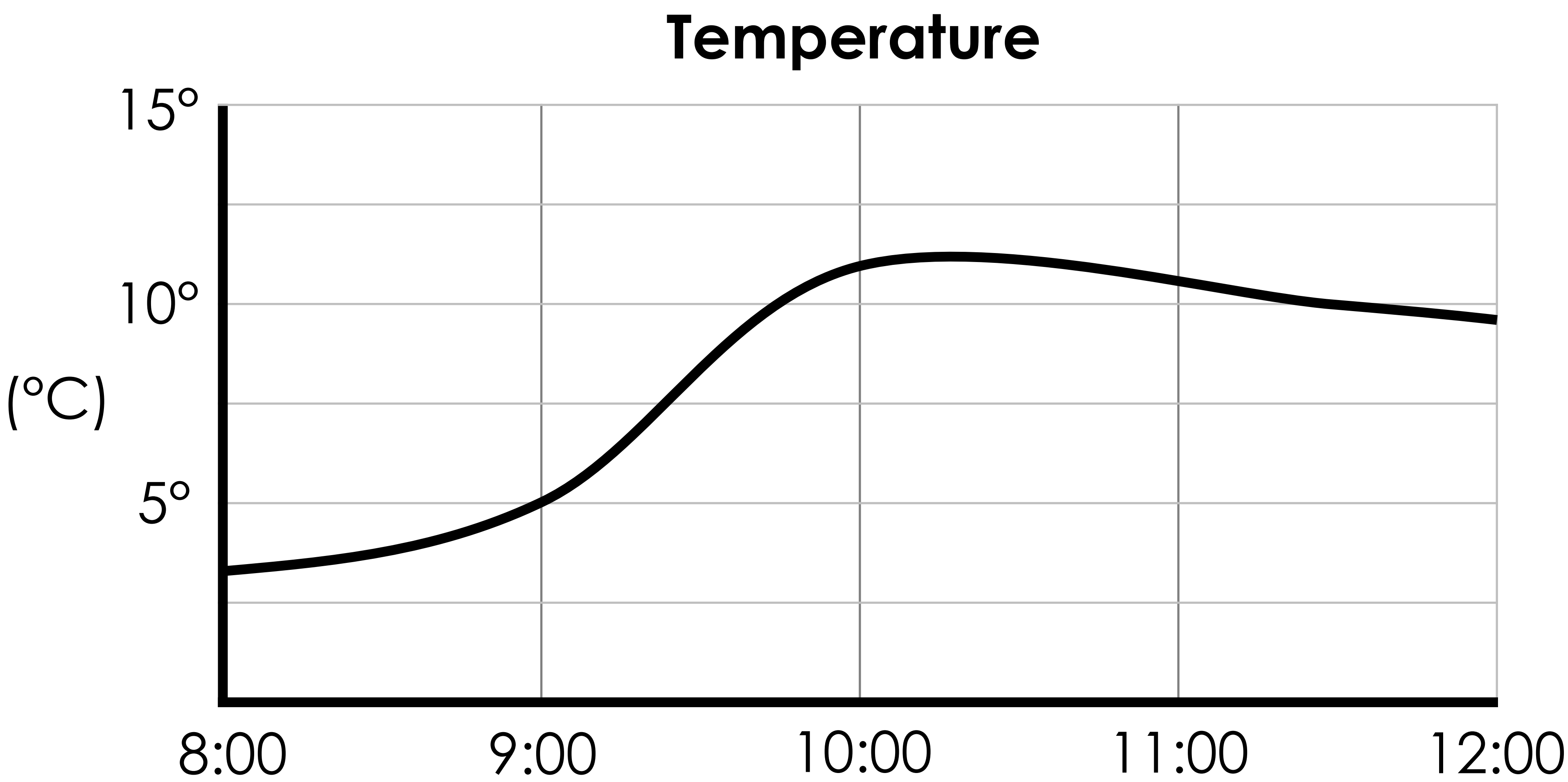
*To answer, take **1 reading***



What was the temperature at 9:30?

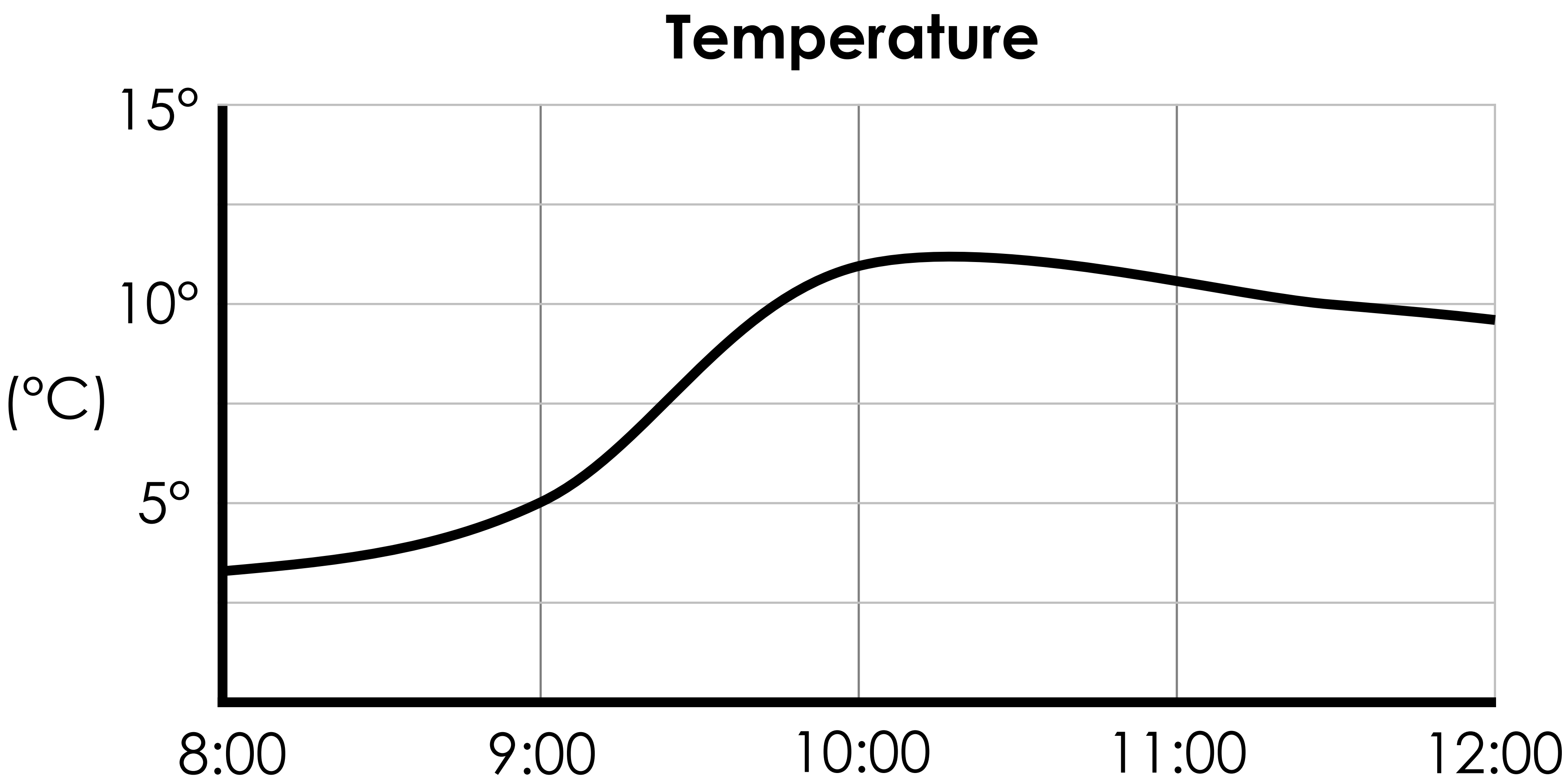
8.5 °C

To answer, take ***1 reading***



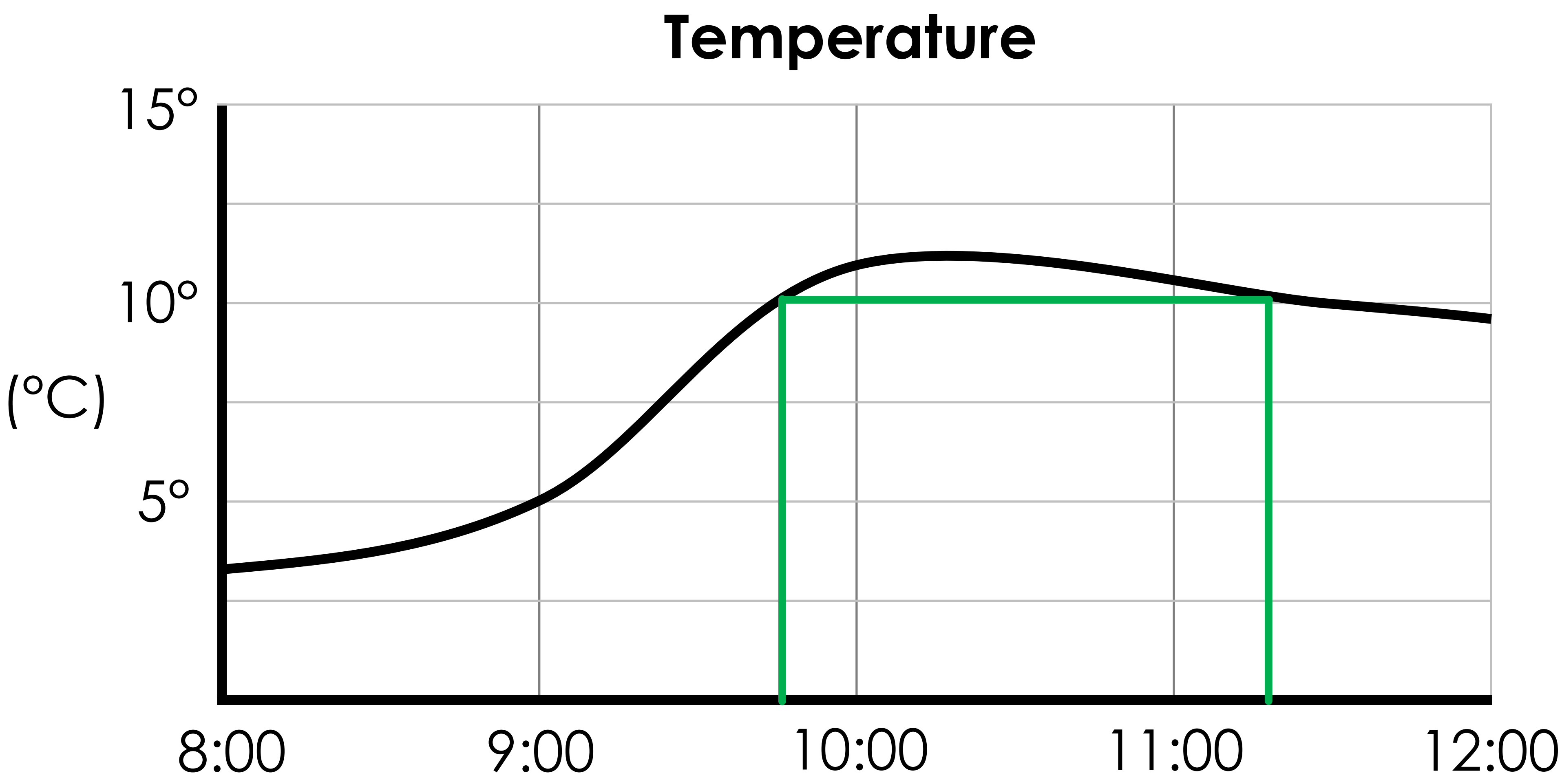
*To answer, calculate the difference between **2 points***

What could the question be?



For how long was the temperature above 10°c?

*To answer, calculate the difference between **2 points***



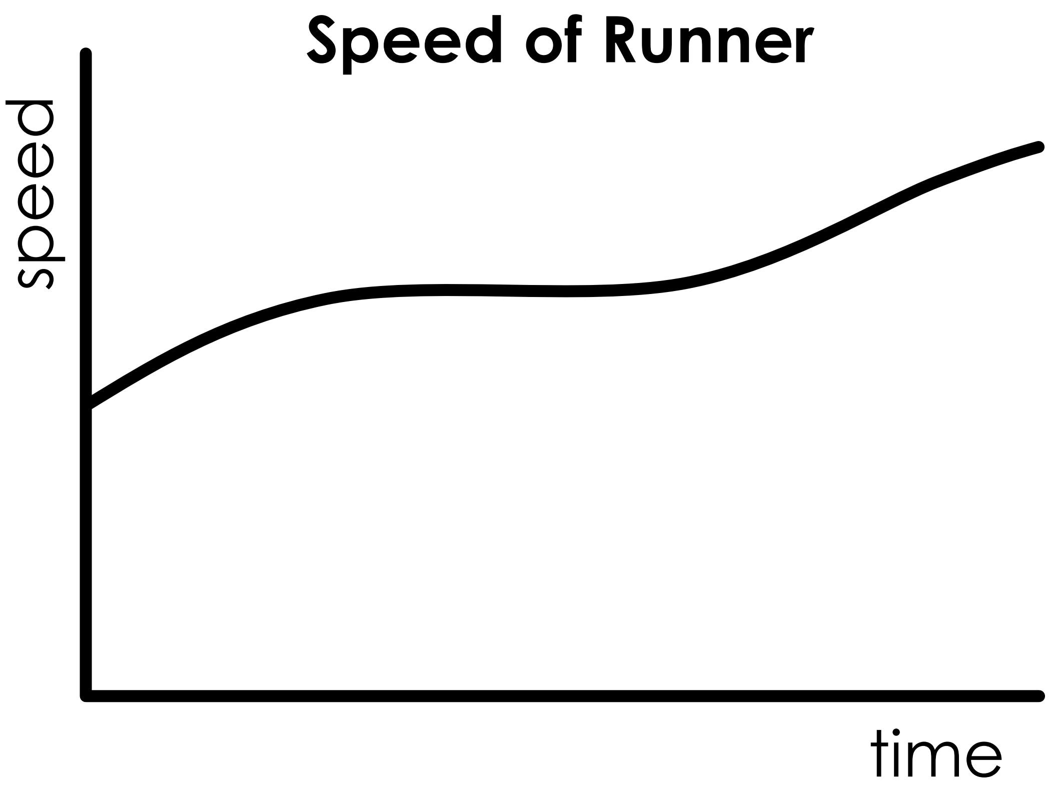
For how long was the temperature above 10°c?

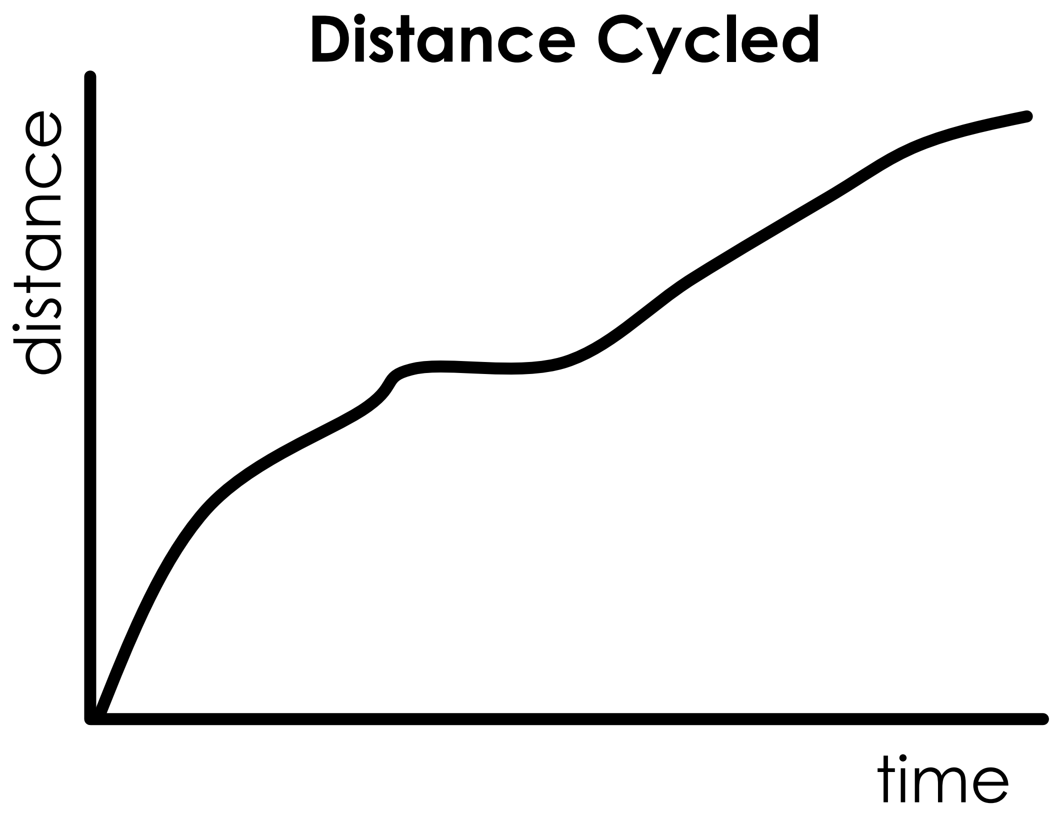
*To answer, calculate the difference between **2 points***

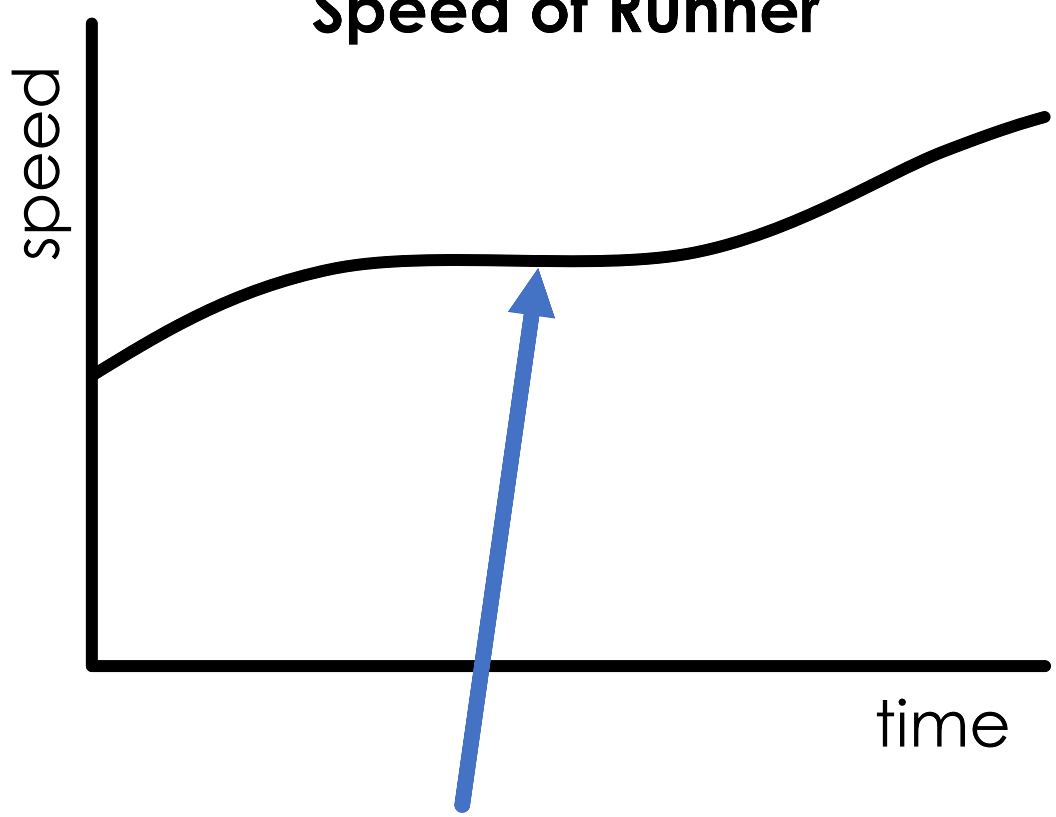
1 hour 35 minutes

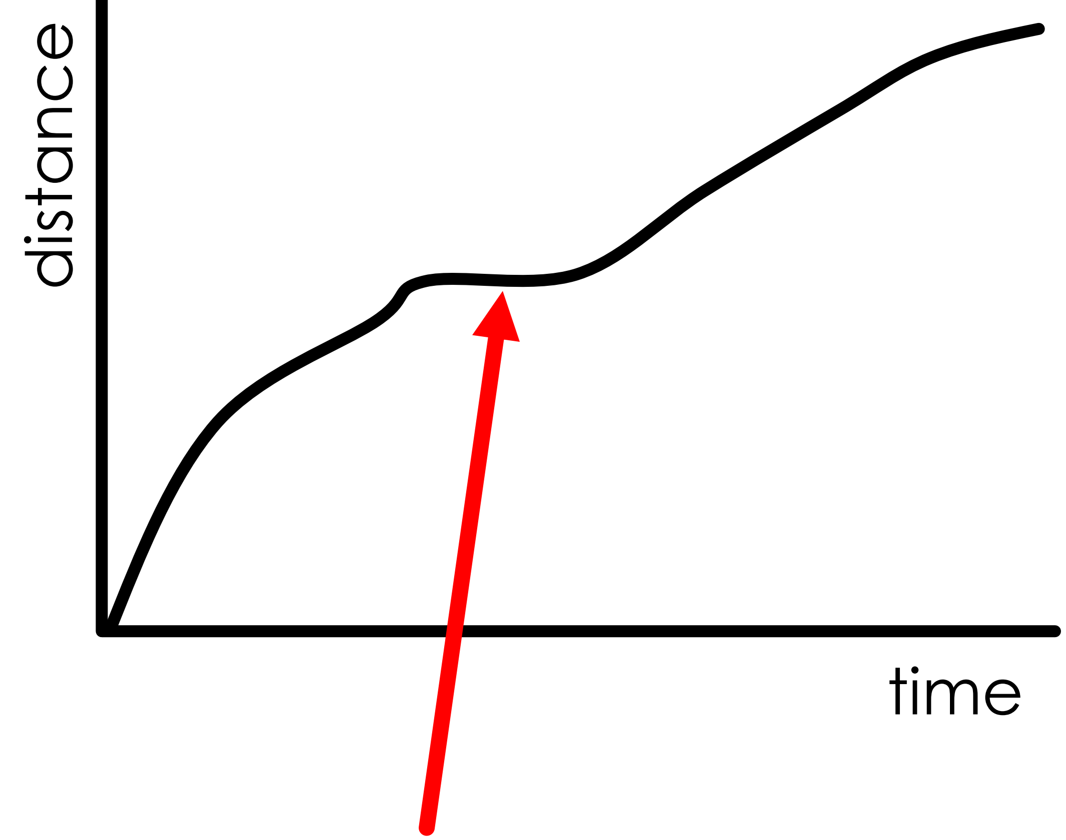
Interpreting Graphs

Build 3





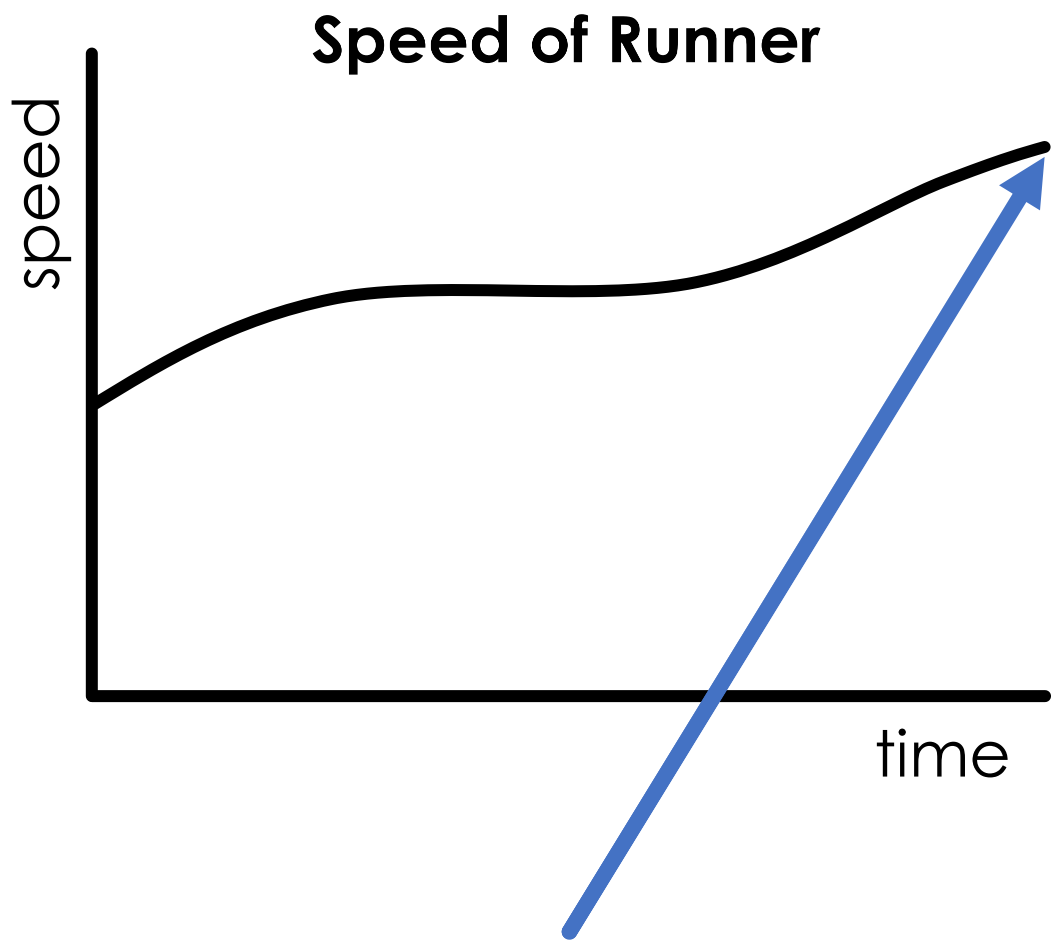


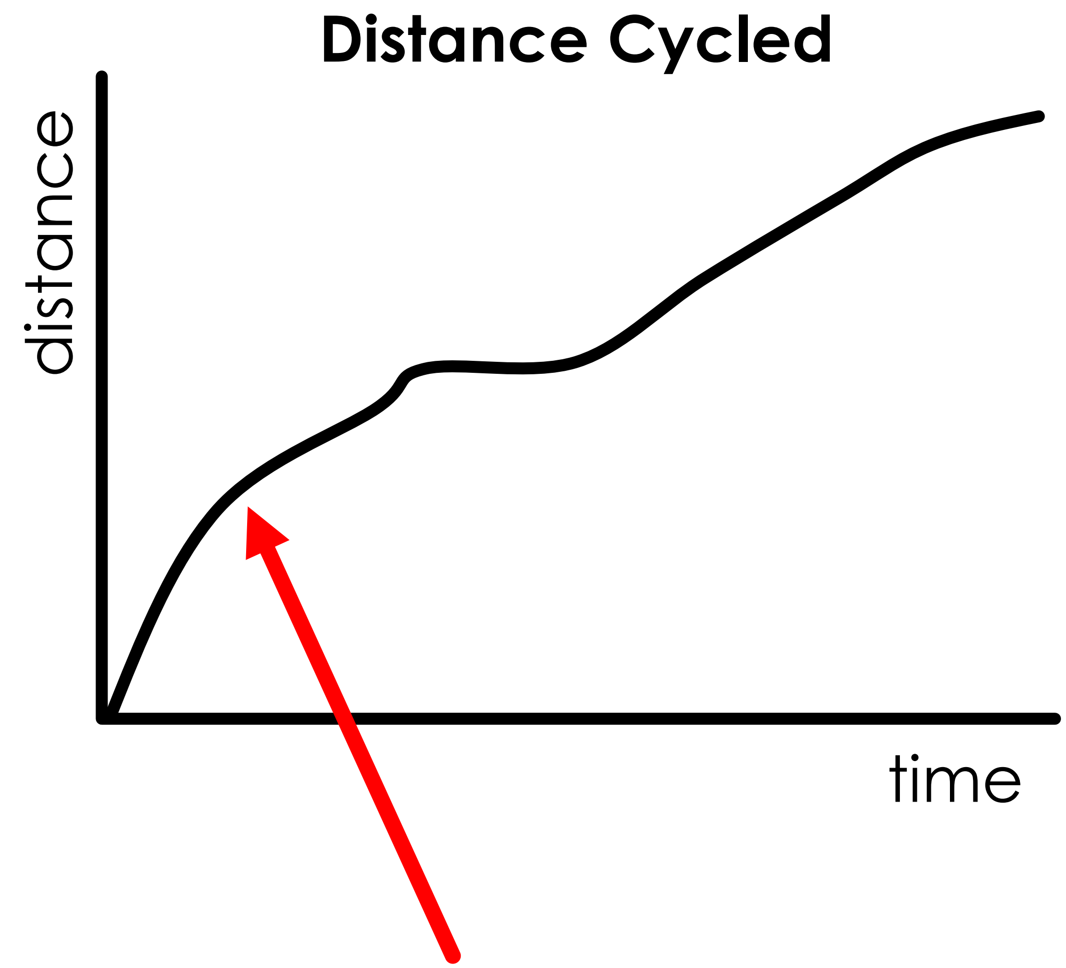


Here, the runner is moving

Here, the cyclist is not moving

Explain





The runners fastest speed is here

The cyclists fastest speed is here

Explain

For each example, **can the mean be calculated?**
Why would the mean be calculated?

The mean number of days in a week.

The mean number of baskets scored by a netball player per match.

The mean price of a mango in the supermarket.

The mean happiness you feel each morning.

The mean height of an adult giraffe.

Which Answer?

Here are the shoe sizes for five children:

3, 4, 3, 7, 3

The mean shoe size is size 3

The mean shoe size is size 4

Which Answer?

Here are the shoe sizes for five children:

3, 4, 3, 7, 3

The mean shoe size is size 3

The mean shoe size is size 4

Shoe sizes	3	4	3	7	3

Which Answer?

Here are the shoe sizes for five children:

3, 4, 3, 7, 3

✗

The mean shoe size is size 3

✓

The mean shoe size is size 4

Shoe sizes	3	4	3	7	3
Mean	4	4	4	4	4

Which Answer?

Three numbers have a mean of 12.
What could the numbers be?

9, 11 and 16

6, 2 and 4

Which Answer?

Three numbers have a mean of 12.
What could the numbers be?

9, 11 and 16

6, 2 and 4

12	12	12

9	11	16

Which Answer?

Three numbers have a mean of 12.
What could the numbers be?

9, 11 and 16 ✓

6, 2 and 4 ✗

12	12	12

9	11	16

The rugby team Layton Warriors played 3 matches.

Their mean number of points per match was $\boxed{}$

Match 1: $\boxed{}$ points

Match 2: $\boxed{}$ points

Match 3: $\boxed{}$ points

The rugby team Layton Warriors played 3 matches.

Their mean number of points per match was $\boxed{}$

Match 1: $\boxed{}$ points

Match 2: $\boxed{}$ points

Match 3: $\boxed{}$ points

Explain why this is ***not the largest or smallest*** *of the four missing numbers.*

The rugby team Layton Warriors played 3 matches.

Their mean number of points per match was $\boxed{20}$

Match 1: $\boxed{21}$ points

Match 2: $\boxed{26}$ points

Match 3: $\boxed{}$ points

The rugby team Layton Warriors played 3 matches.

Their mean number of points per match was $\boxed{20}$

Match 1: $\boxed{21}$ points

Match 2: $\boxed{26}$ points

Match 3: $\boxed{13}$ points

The rugby team Layton Warriors played 3 matches.

In total, they scored $\boxed{60}$ points.

Their mean number of points per match was $\boxed{20}$

Match 1: $\boxed{21}$ points

Match 2: $\boxed{26}$ points

Match 3: $\boxed{13}$ points

The rugby team Dutton Lions played 4 matches.

In total, they scored $\boxed{60}$ points.

Their mean number of points per match was ☐

Match 1: ☐ points

Match 2: ☐ points

Match 3: ☐ points

Match 4: ☐ points

The rugby team Dutton Lions played 4 matches.

In total, they scored $\boxed{60}$ points.

Their mean number of points per match was $\boxed{}$

Match 1: $\boxed{}$ points

Match 2: $\boxed{}$ points

Match 3: $\boxed{}$ points

Match 4: $\boxed{}$ points

Can the mean be calculated?

The rugby team Dutton Lions played 4 matches.

In total, they scored $\boxed{60}$ points.

Their mean number of points per match was $\boxed{15}$

Match 1: $\boxed{}$ points

Match 2: $\boxed{}$ points

Match 3: $\boxed{}$ points

Match 4: $\boxed{}$ points

The rugby team Dutton Lions played 4 matches.

In total, they scored $\boxed{60}$ points.

Their mean number of points per match was $\boxed{15}$

Match 1: $\boxed{19}$ points

Match 2: $\boxed{10}$ points

Match 3: $\boxed{}$ points

Match 4: $\boxed{}$ points

Give possible values.

The rugby team Dutton Lions played 4 matches.

In total, they scored $\boxed{60}$ points.

Their mean number of points per match was $\boxed{15}$

Match 1: $\boxed{19}$ points

Match 2: $\boxed{10}$ points

Match 3: $\boxed{14}$ points

Match 4: $\boxed{17}$ points