

I See Maths presents...

Christmas Challenges

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www.iseemaths.com



Dressing Elves

Task 1A

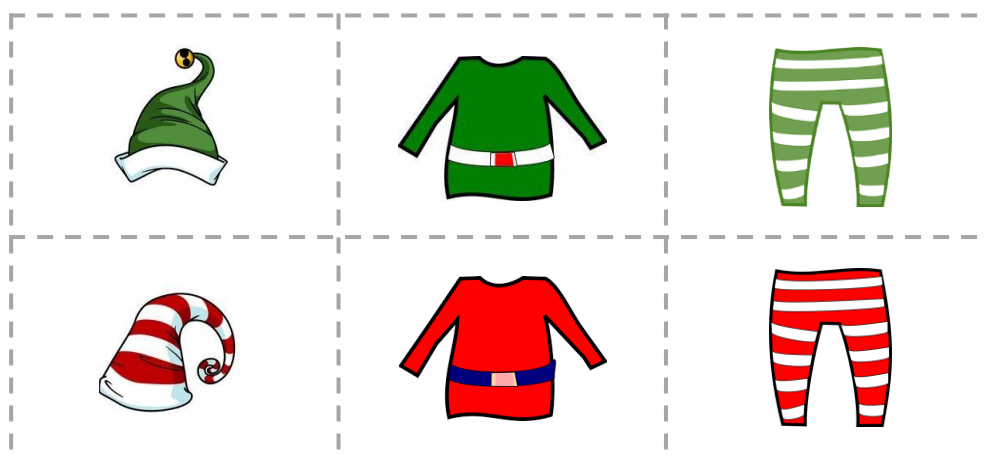
Elves have 2 hats.  

Elves have 2 jumpers.  

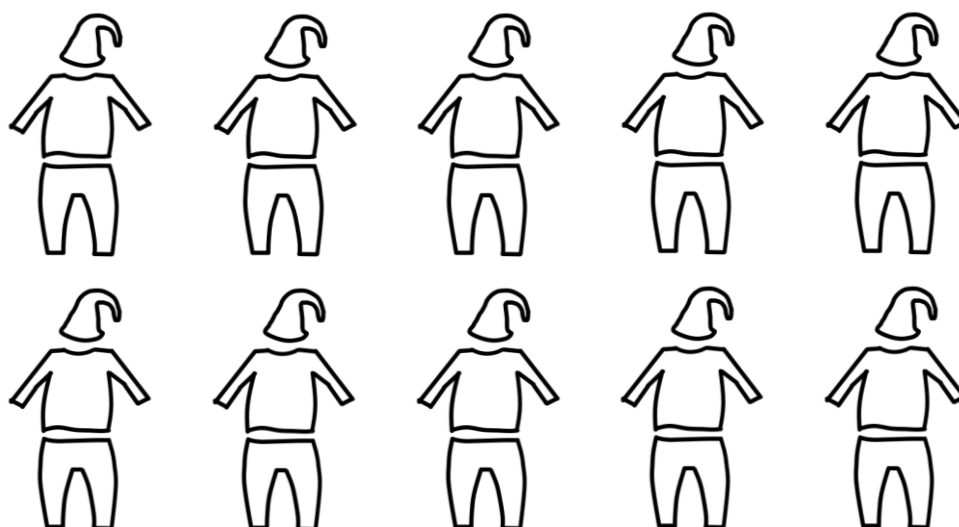
Elves have 2 pairs of trousers.  

How many ways can Elves get dressed?

Cut the clothes out to help find the answer!



Draw the different ways that Elves can get dressed:



Elves can get dressed in ways.

Dressing Elves

Task 1B

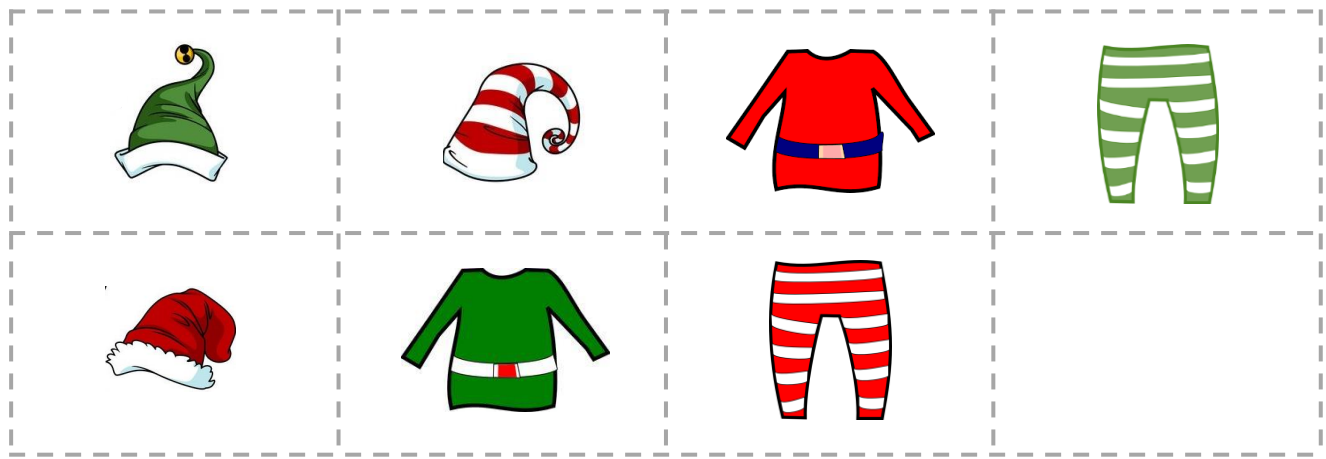
Elves have 3 hats.   

Elves have 2 jumpers.  

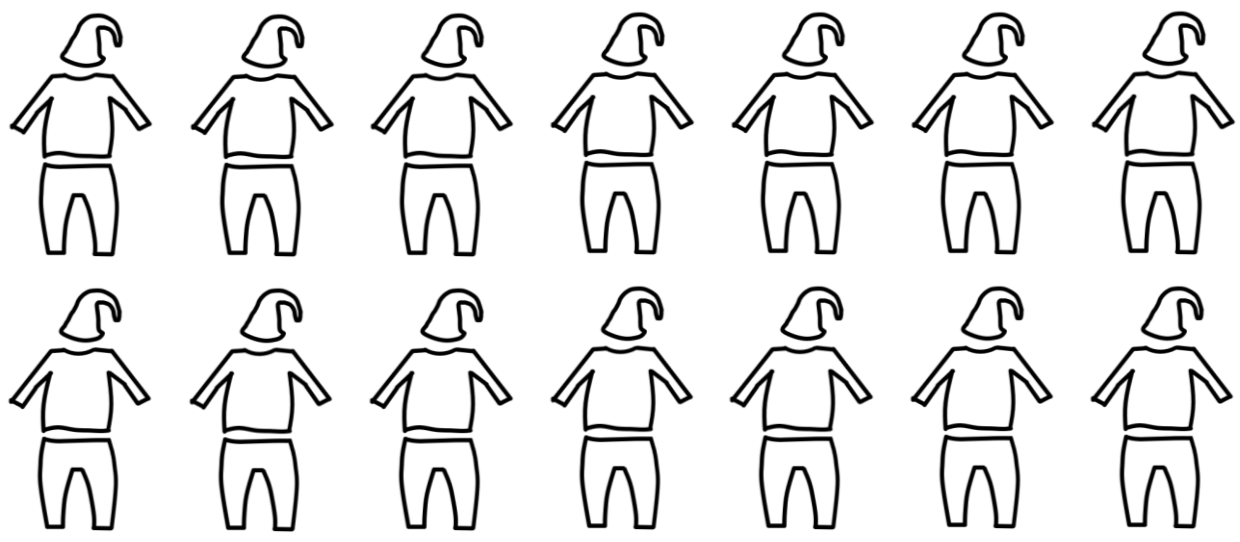
Elves have 2 pairs of trousers.  

How many ways can Elves get dressed?

Cut the clothes out to help find the answer!



Draw the different ways that Elves can get dressed:



Elves can get dressed in ways.

Christmas Favourites

Task 2

For each question, tick **one** box:

Q1: I am more likely to wear:

Christmas jumper



Santa hat



Q2: Before Christmas the thing I enjoy doing most is:

Decorating my tree



Carol singing



Buying presents



Q3: My favourite of these Christmas foods:

Mince pies



Christmas pudding



Sprouts



This questionnaire can be answered in ways.

You can cut out these pictures. It may help you to find different answers!



Extension:

The questionnaire is re-written so Q3 includes the answer 'Turkey'.
How many ways can the new questionnaire be answered?

Inside Santa's Workshop

Task 3

The Christmas Elves have been busy making presents. This has made them hungry! Mrs Claus decided to count how many mince pies each Elf has eaten in the last week.



Alabaster Snowball

In total, the three Elves ate 26 mince pies.

Alabaster Snowball ate the most mince pies.

Alabaster Snowball ate less than half of the mince pies.

Bushy Evergreen ate 4 more mince pies than Sugarplum Mary.



Sugarplum Mary



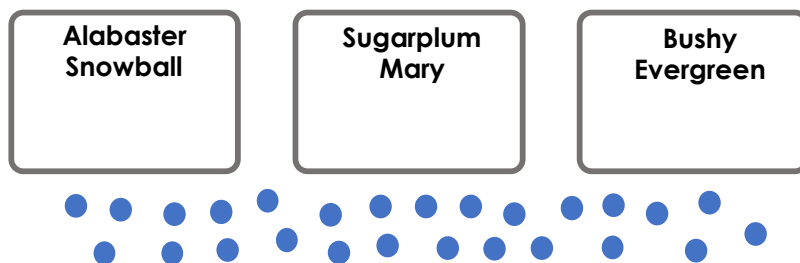
Bushy Evergreen

How many mince pies did each Elf eat?

Tip: Try sharing 26 counters between three whiteboards.

Each whiteboard represents one of the Elves. Each counter represents a mince pie.

S
U
P
P
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E
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D

One morning, Santa decided to count how many Christmas presents each Elf made. This is what he found:

Bushy Evergreen made two more presents than Alabaster Snowball.

Alabaster Snowball and Sugarplum Mary made 17 presents.

Sugarplum Mary made three more presents than Bushy Evergreen.

How many presents does each Elf make?

CHRISTMAS TASKS: Answers

Task 1A, Dressing Elves: 8 ways

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------|-------|-------|-------|-------|--------|--------|--------|--------|
| Hat | green | green | green | green | stripy | stripy | stripy | stripy |
| Jumper | green | green | red | red | green | green | red | red |
| Trousers | green | red | green | red | green | red | green | red |

Task 1B, Dressing Elves: 12 ways

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------|-------|-------|-------|-------|--------|--------|--------|--------|
| Hat | green | green | green | green | stripy | stripy | stripy | stripy |
| Jumper | green | green | red | red | green | green | red | red |
| Trousers | green | red | green | red | green | red | green | red |

| | 9 | 10 | 11 | 12 |
|-----------------|-------|-------|-------|-----|
| Hat | red | red | red | red |
| Jumper | green | green | red | red |
| Trousers | green | red | green | red |

Task 2, Christmas Favourites: 18 ways

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| Q1 | jumper | jumper | jumper | jumper | jumper | jumper | jumper | jumper | jumper |
| Q2 | tree | tree | tree | sing | sing | sing | prezzie | prezzie | prezzie |
| Q3 | mince p | C pud | sprouts | mince p | C pud | sprouts | mince p | C pud | sprouts |

| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|-----------|---------|-------|---------|---------|-------|---------|---------|---------|---------|
| Q1 | hat | hat | hat | hat | hat | hat | hat | hat | hat |
| Q2 | tree | tree | tree | sing | sing | sing | prezzie | prezzie | prezzie |
| Q3 | mince p | C pud | sprouts | mince p | C pud | sprouts | mince p | C pud | sprouts |

Extension: 24 ways

Task 3, Inside Santa's Workshop: Alabaster S = 12 Sugarplum M = 5
Bushy E = 9

Extension: Alabaster S = 6 Sugarplum M = 11 Bushy E = 8

I SEE MATHS RESOURCES

A range of resources for developing deep, visual mathematics can be found at www.iseemaths.com

The ***I See Reasoning*** eBooks provide a range of thought-provoking tasks and questions for embedding reasoning in daily lessons:

[I See Reasoning – UKS2](#)

[I See Reasoning – LKS2](#)

[I See Reasoning – KS1](#)

[I See Problem-Solving – UKS2](#) is a bank of multi-stage maths tasks. Each task comes with support, explain and extend features to ensure that children are supported and challenged.

iPad app [Logic Squares](#), ideal for children in KS2, gets children applying calculation facts and thinking strategically.

Information about conferences and in-school training led by Gareth Metcalfe can be found at www.iseemaths.com

Social Media

Twitter: @gareth_metcalfe

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