## Task A

## Part 1:

Which of the digits from 1 to 9 are factors of 128 ?

$$
\begin{array}{lllllllll}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9
\end{array}
$$

Which digits could you work out mentally?
Which written calculations did you do?
Part 2:
Order from the number with the least factors to the number with the most factors:

$$
\begin{array}{lll}
35 & 36 & 45
\end{array}
$$

## Task B

Part 1:
Which of the digits from 1 to 9 are factors of 594 ?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Which digits could you work out mentally?
Which written calculations did you do?
Part 2:
Order from the number with the least factors to the number with the most factors:
$\begin{array}{ll}76 & 78\end{array}$

## Extend

Put two numbers in each section of the Venn diagram. Each number must be more than 5 and less than 50.

## multiples of 6

factors of 72


## Answers, Task A:

Part 1: Factors of 128: 1248
Part 2: 35 has 4 factors: 1573545 has 6 factors: 13591545
36 has 7 factors: 12236121836

## Answers, Task B:

Part 1: Factors of 594: 12369
Part 2: 81 has 5 factors: $1392781 \quad 76$ has 6 factors: 124193876
78 has 8 factors: 123613263978

## Extend:

Example answers: Left oval: 30, 42. Right oval: 8, 9. Middle section: 8, 12.
Outside: 10, 14.

