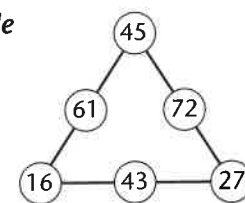


TARGET To solve number problems involving addition and subtraction.

In an arithmagon the pair of numbers at the end of each line are added together to give the number between them.

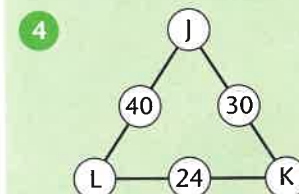
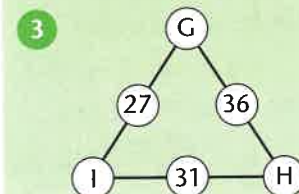
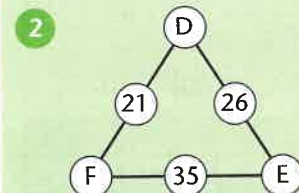
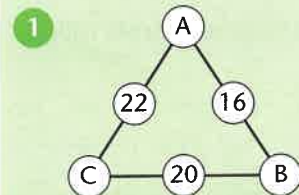
Example



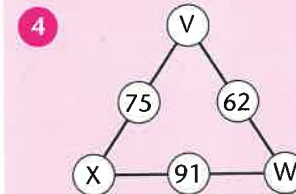
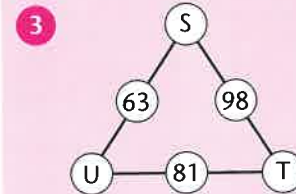
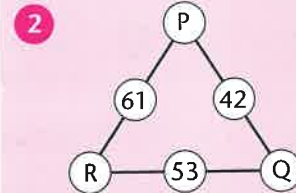
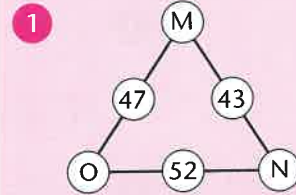
$$\begin{aligned} 45 + 27 &= 72 \\ 27 + 16 &= 43 \\ 16 + 45 &= 61 \end{aligned}$$

Find the missing numbers in these arithmagons.

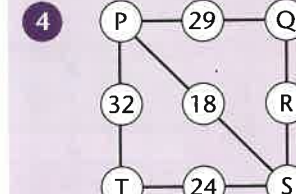
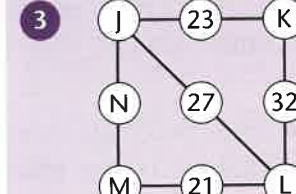
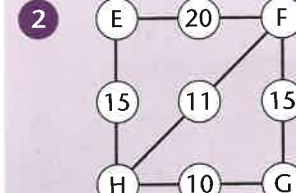
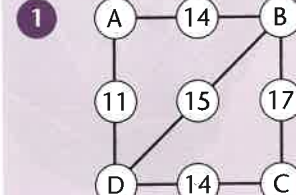
A



B



C

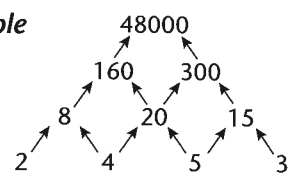


TARGET To solve number puzzles involving multiplication and division.

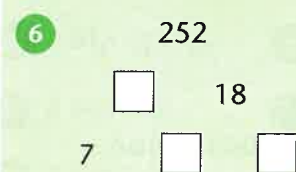
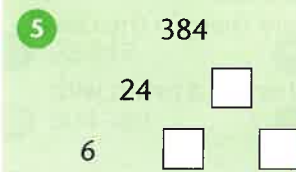
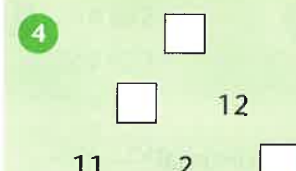
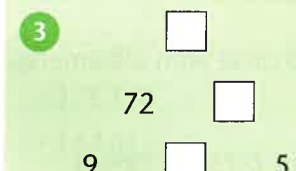
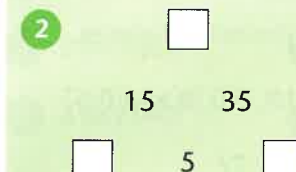
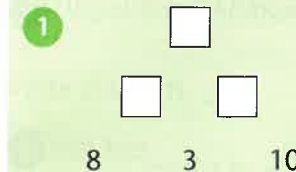
In a multiplication pyramid pairs of numbers are multiplied together to make the number above them.

Use jottings to help complete the multiplication pyramids.

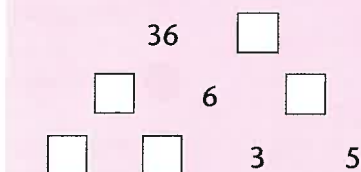
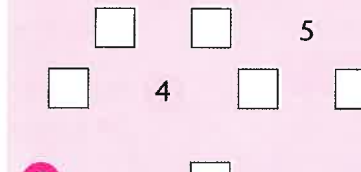
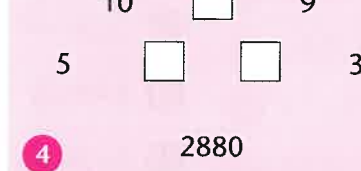
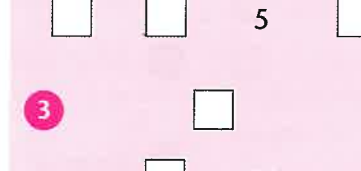
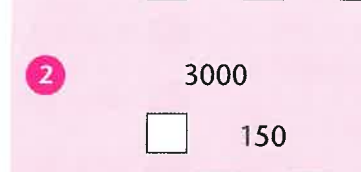
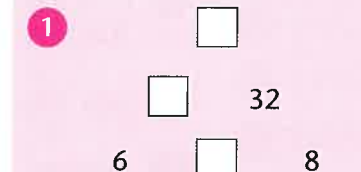
Example



A



B



C

Arrange the numbers in brackets to form the bottom layer of a multiplication pyramid with the given top layer total.

1 (1, 2, 3, 4) 96

2 (2, 2, 4, 5) 8000

3 (1, 2, 3, 7) 168

4 (1, 2, 5, 6) 6000

Using single-digit prime numbers only make a four layer pyramid with a top layer of:

5 960

7 21 000

6 6000

8 864

9 Millie, Mollie and Maisie each used the same three numbers to form the bottom layer of a 3 layer multiplication pyramid. They each had a different top layer total. Millie's was 140, Mollie's was 350. What was Maisie's total?