Mystery Hexagons

You need ☑ a photocopy of the hexagon shapes ☑ a calculator (optional)

Activity

1. Follow these 4 steps to find the mystery number.

Step 1: Choose 3 pairs of numbers. (These have been chosen for you in this mystery hexagon.) Put them in the outer part of the hexagon.

15, 3   10, 8

9, 11

Step 2: Find the product of each pair. Write the product in the inner triangle.

15, 3   45   80   10, 8

99

9, 11

Step 3: Find the product of the 2 numbers that are on either side of each empty triangle. Write the product in the empty triangle.

15, 3   3 600   10, 8
45   80
4 455   7 920
99

9, 11

Step 4: Multiply the numbers in the opposite triangles. Write each answer in the empty trapezium next to the larger number.

?
15, 3   3 600   10, 8
45 ← → 80
4 455   7 920
?   99   ?

9, 11

What is the mystery number for this hexagon?

2. Try this with 3 different pairs of numbers. Does it still work?

3. Does it work if you add the numbers or use decimals?

4. How does the mystery hexagon work?