

Question 1 (2 Marks)

Write these numbers in order of size.

Start with the smallest number.

$$6.72 \times 10^5$$

$$67.2 \times 10^{-4}$$

$$672 \times 10^4$$

$$0.000672$$

Question 2 (4 Marks)

The perimeter of a right-angled triangle is 72 cm.

The lengths of its sides are in the ratio 3 : 4 : 5

Work out the area of the triangle.

..... cm²

Question 3 (2 Marks)

Simplify $(2^{-5} \times 2^8)^2$

Give your answer as a power of 2

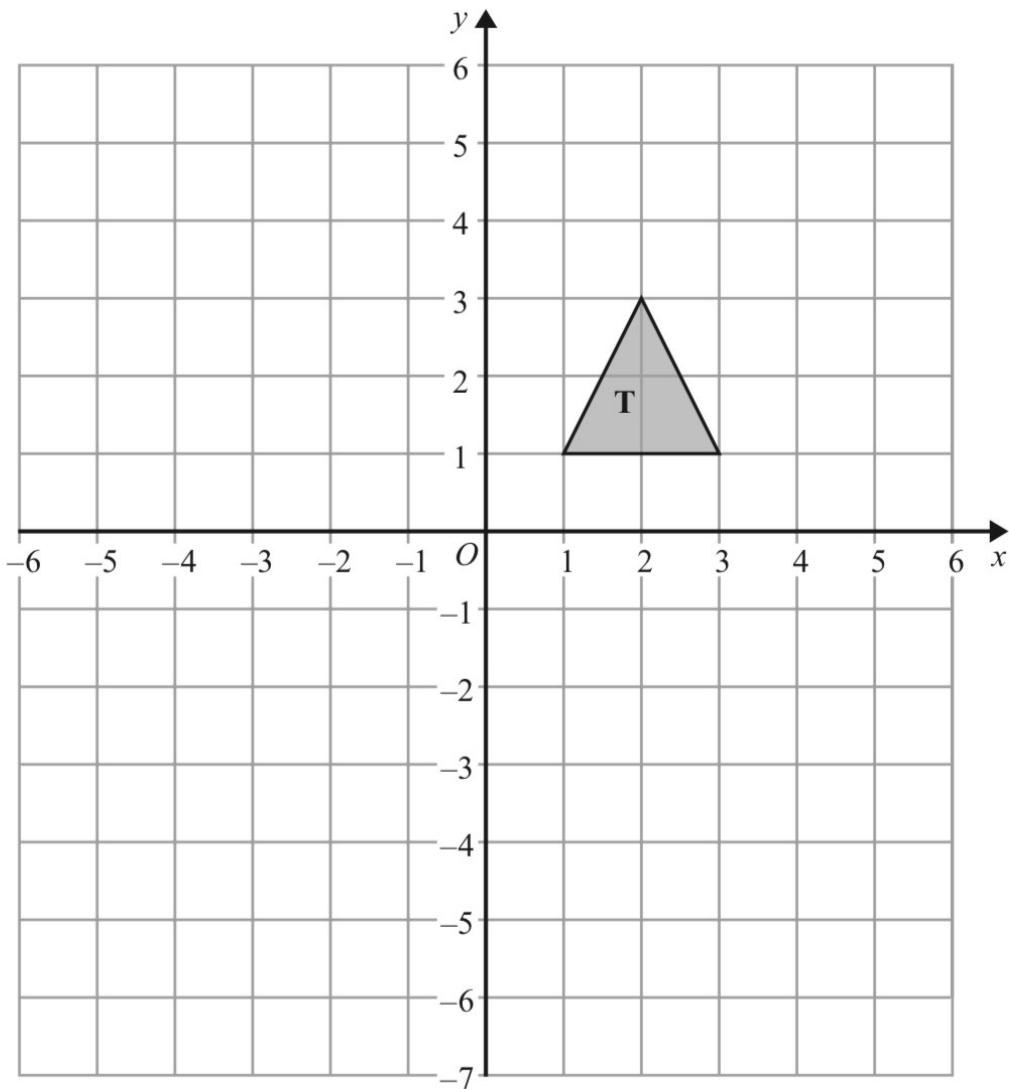
.....

Question 4 (2 Marks)

The equation of the line L_1 is $y = 3x - 2$

The equation of the line L_2 is $3y - 9x + 5 = 0$

Show that these two lines are parallel.

Question 5 (2 Marks)

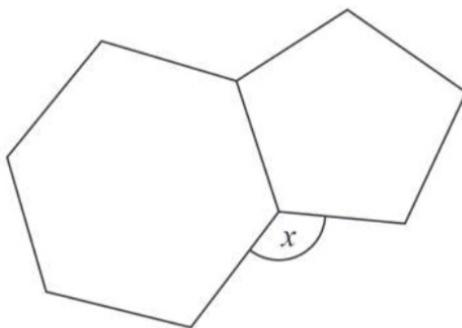
Shape **T** is reflected in the line $x = -1$ to give shape **R**.

Shape **R** is reflected in the line $y = -2$ to give shape **S**.

Describe the **single** transformation that will map shape **T** to shape **S**.

Question 6 (3 Marks)

Here is a regular hexagon and a regular pentagon.



Work out the size of the angle marked x .

You must show all your working.

(Total 15 Marks)