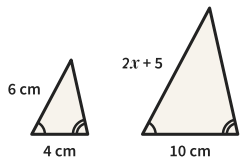


Similar triangles and equations

1

The triangles are similar. Find x .



$$\text{scale factor} = \frac{10}{4} = 2.5$$

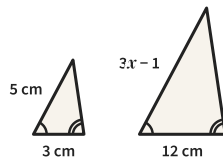
$$2x + 5 = 6 \times 2.5$$

$$x =$$

Answer _____

2

The triangles are similar. Find x .



$$\text{scale factor} = \frac{12}{3} = 4$$

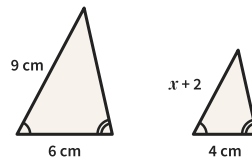
$$3x - 1 = 5 \times 4$$

$$x =$$

Answer _____

3

The triangles are similar. Find x .



$$\text{scale factor} = \frac{4}{6} =$$

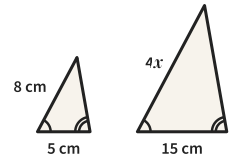
$$x + 2 = 9 \times$$

$$x =$$

Answer _____

4

The triangles are similar. Find x .

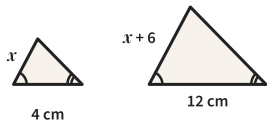


$$x =$$

Answer _____

5

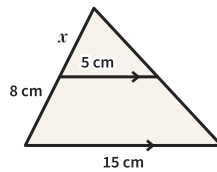
The triangles are similar. Find x .



Answer _____

6

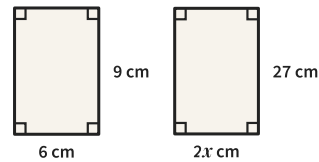
The two lines with arrows are parallel. The small triangle at the top has sides x and 5 cm. Find x .



Answer _____

7

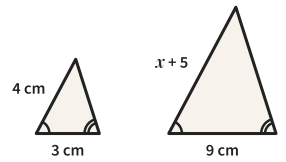
A photo 6 cm by 9 cm is enlarged to $2x$ cm by 27 cm. Find x .



Answer _____

8

The triangles are similar. Find x , then the perimeter of the large triangle.

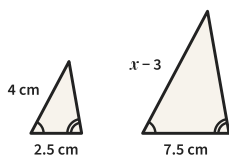


Answer _____

Similar triangles and equations *further practice*

9

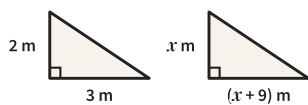
The triangles are similar. Find x .



Answer _____

10

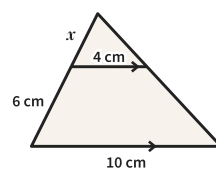
A post 2 m tall casts a shadow 3 m long. At the same time a tree x m tall casts a shadow $(x + 9)$ m long. How tall is the tree?



Answer _____

11

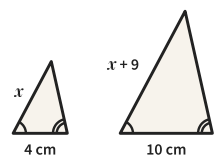
The two lines with arrows are parallel. Find x .



Answer _____

12

The triangles are similar. Find x .



Answer _____

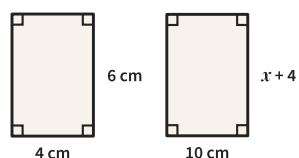
13

A triangle has sides 3 cm, 5 cm and x cm. A similar triangle has sides 9 cm, 15 cm and 21 cm. Find x .

Answer _____

14

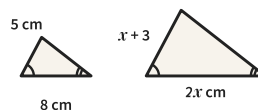
The rectangles are similar. Find the area of the large rectangle.



Answer _____

15

The triangles are similar. Find x .



Answer _____

16

Ravi says triangles with sides 4 cm, 6 cm and 6 cm, 8 cm are similar because 2 was added to each side. Explain why he is wrong.

Answer _____