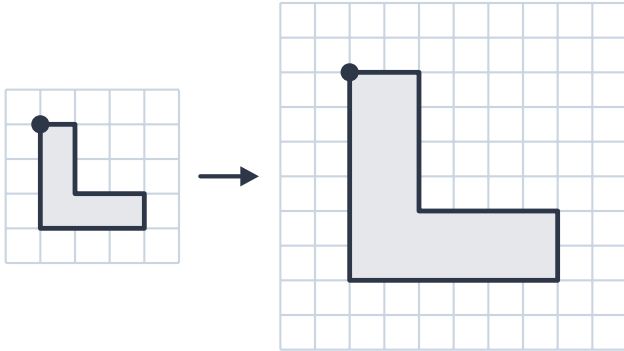


Similar Shapes

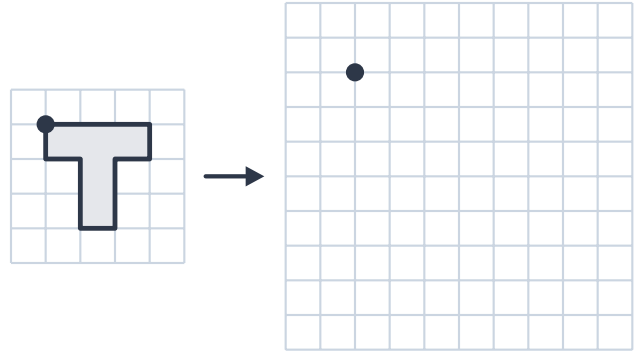
Enlarge each shape by the scale factor. Start at the matching dot.

1. Scale factor 2

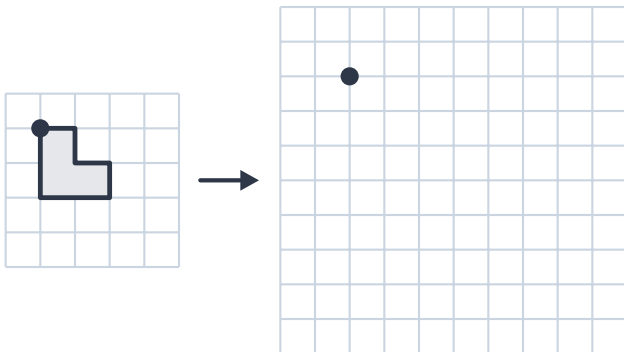
Example



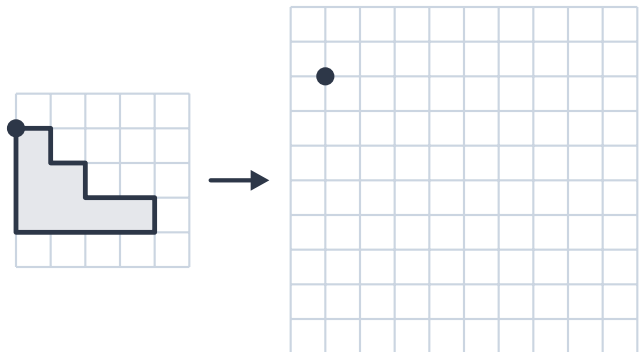
2. Scale factor 2



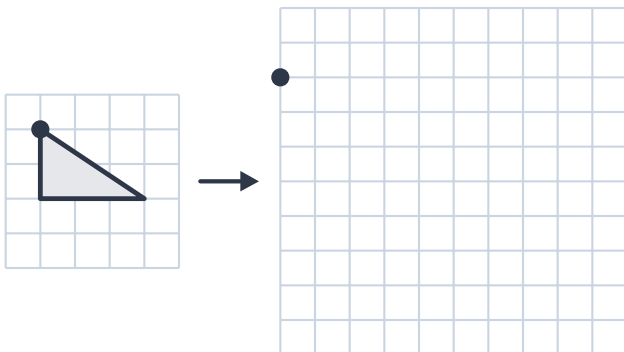
3. Scale factor 3



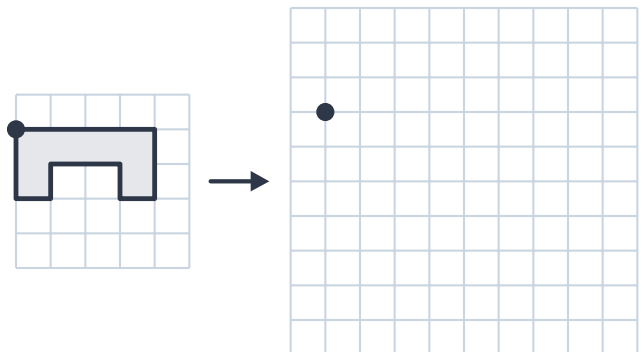
4. Scale factor 2



5. Scale factor 3



6. Scale factor 2

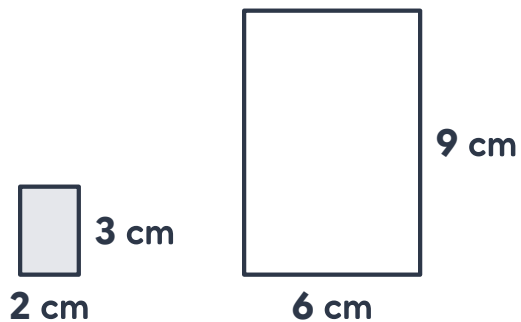


Similar Shapes

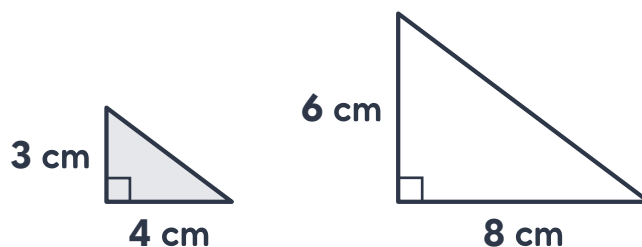
Each larger shape is an enlargement. Find the scale factor.

1.

Example

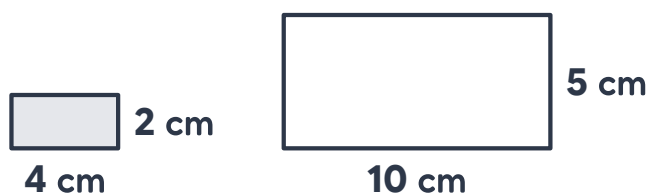
Scale factor 3

2.



Scale factor _____

3.



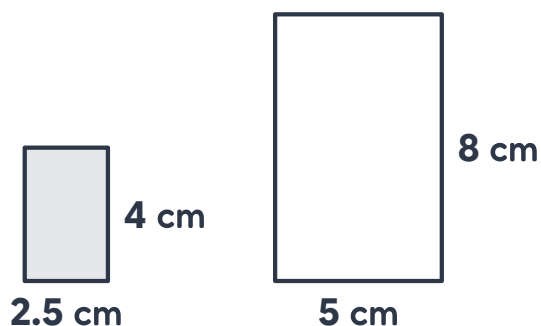
Scale factor _____

4.



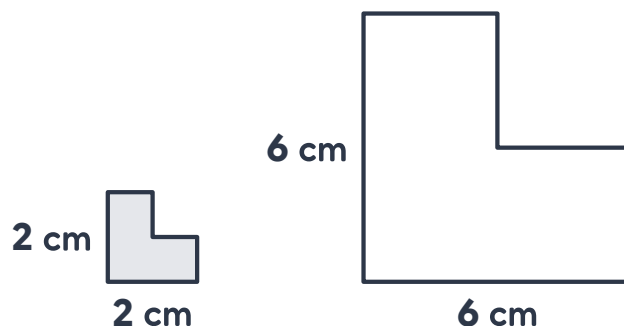
Scale factor _____

5.



Scale factor _____

6.



Scale factor _____

Similar Shapes

The rectangles are similar. Find the scale factor, then the missing side.

1.

Example

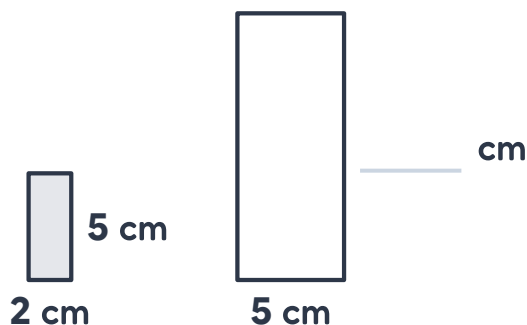
Scale factor 2

2.



Scale factor _____

3.



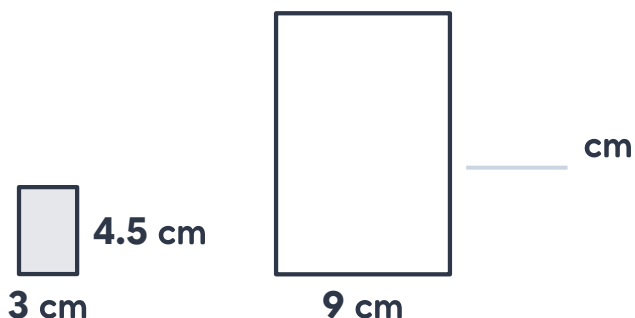
Scale factor _____

4.



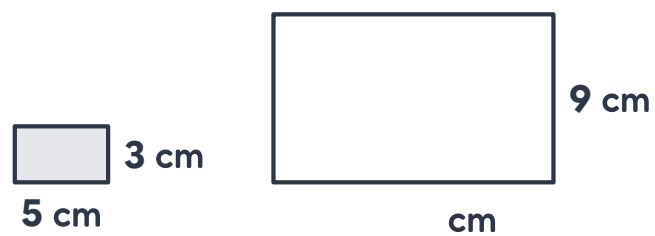
Scale factor _____

5.



Scale factor _____

6.



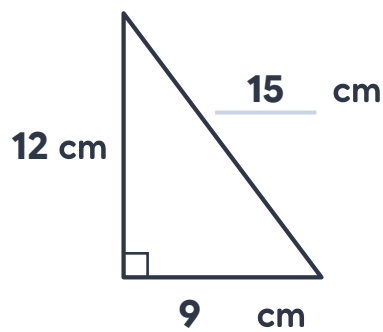
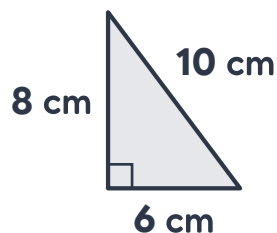
Scale factor _____

Similar Shapes

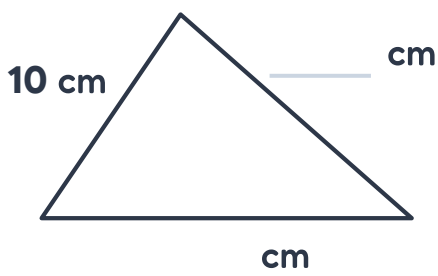
The triangles are similar. Find the scale factor, then the missing sides.

1.

Example

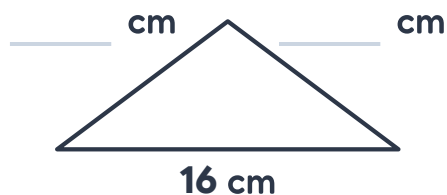
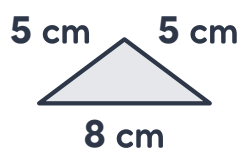
Scale factor 1.5

2.



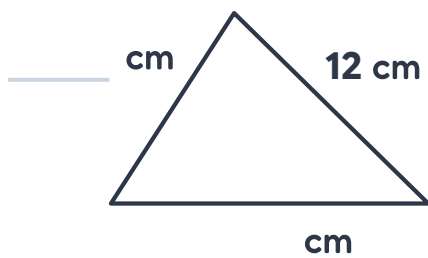
Scale factor _____

3.



Scale factor _____

4.



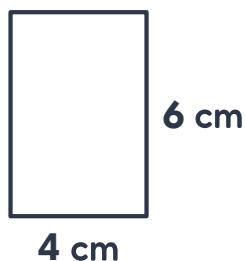
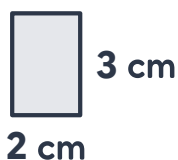
Scale factor _____

Similar Shapes

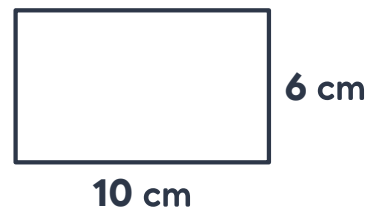
Find the scale factor for the short sides and the long sides. Similar?

1.

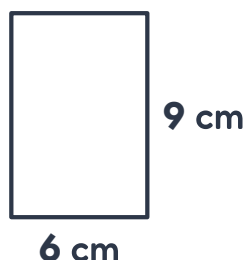
Example

Short sides $\times$ 2 Similar?Long sides $\times$ 2 **Yes** No

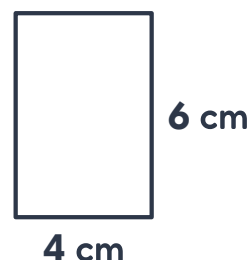
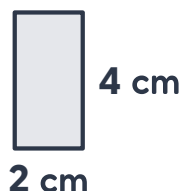
2.

Short sides $\times$ _____ Similar?Long sides $\times$ _____ Yes No

3.

Short sides $\times$ _____ Similar?Long sides $\times$ _____ Yes No

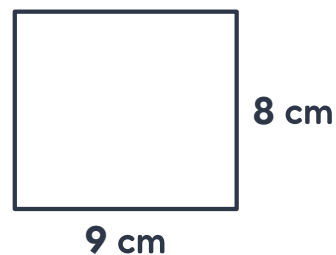
4.

Short sides $\times$ _____ Similar?Long sides $\times$ _____ Yes No

5.

Short sides $\times$ _____ Similar?Long sides $\times$ _____ Yes No

6.

Short sides $\times$ _____ Similar?Long sides $\times$ _____ Yes No

Similar Shapes

Use the scale factor to solve each problem.

1. A photo **10 cm** by **15 cm** is enlarged by scale factor **3**. What size is the new photo?

Example

30 cm by 45 cm

2. A model car is **21 cm** long. The real car is **20** times as long. How long is the real car in metres?

 m

3. On a plan, every real length is **100** times as long. A classroom is **9 cm** long on the plan. How long is the real classroom?

 m

4. A triangle has sides of **3 cm**, **5 cm** and **7 cm**. It is enlarged so that its shortest side is **4.5 cm**. Find the scale factor and the longest side.

Scale factor

Longest side cm

5. A rectangle is **4 cm** by **7 cm**. A similar rectangle has a shorter side of **10 cm**. How long is its longer side?

 cm

6. A lighthouse is **30 m** tall. It is **50** times as tall as a model of it. How tall is the model in centimetres?

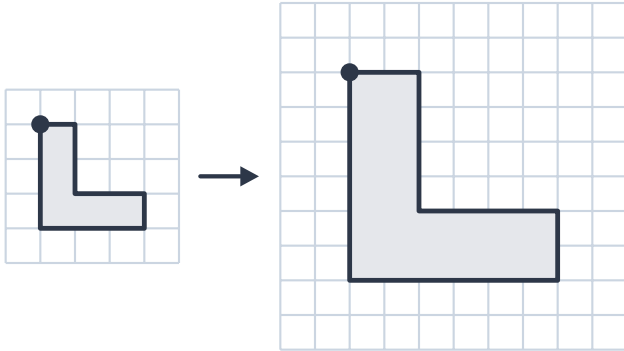
 cm

Similar Shapes

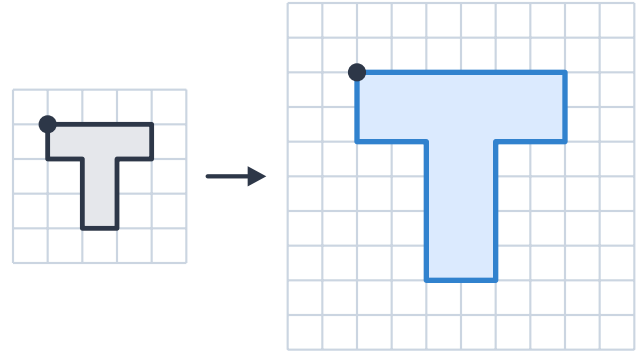
Enlarge each shape by the scale factor. Start at the matching dot.

1. Scale factor 2

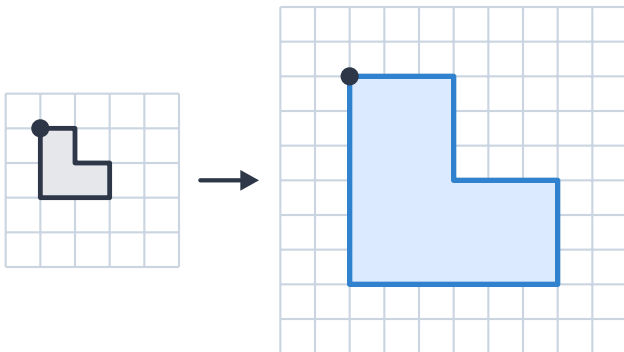
Example



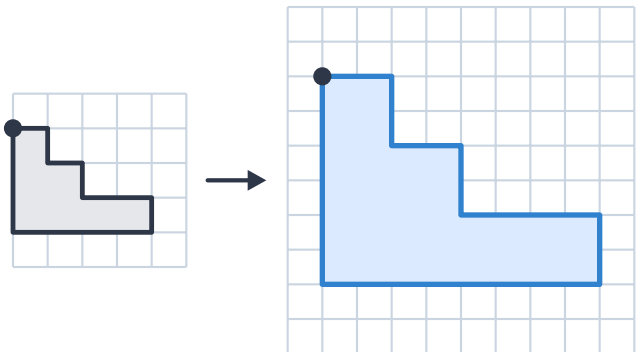
2. Scale factor 2



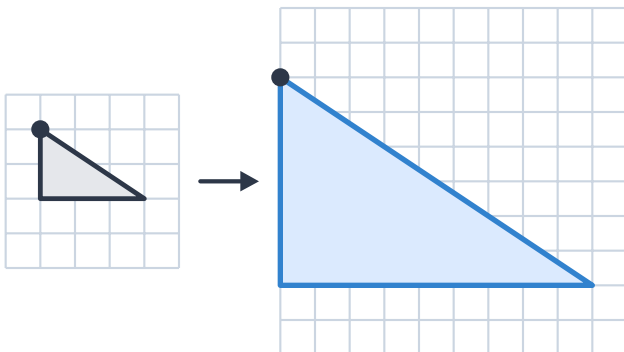
3. Scale factor 3



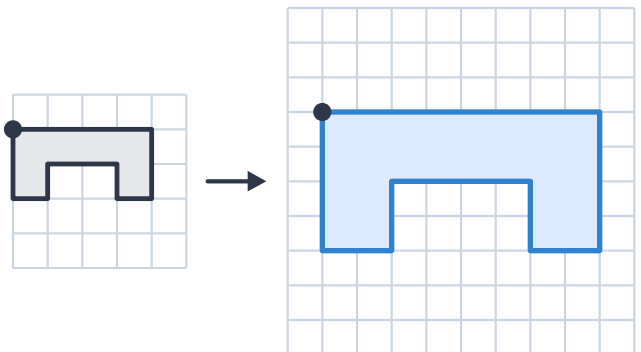
4. Scale factor 2



5. Scale factor 3



6. Scale factor 2

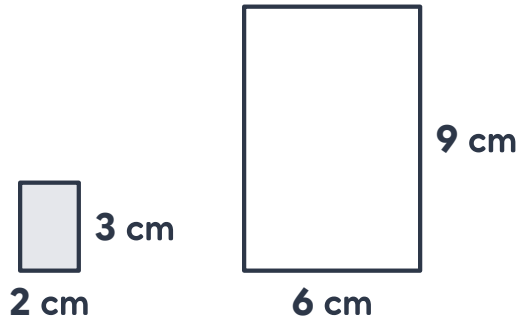


Similar Shapes

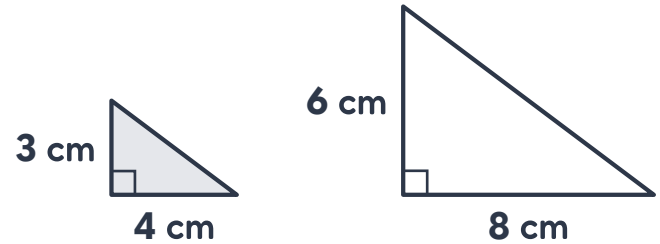
Each larger shape is an enlargement. Find the scale factor.

1.

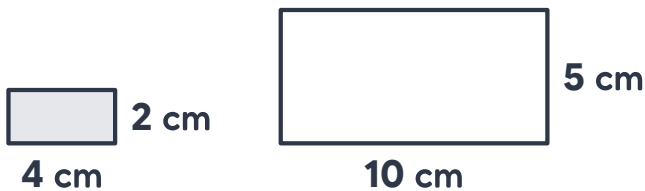
Example

Scale factor 3

2.

Scale factor 2

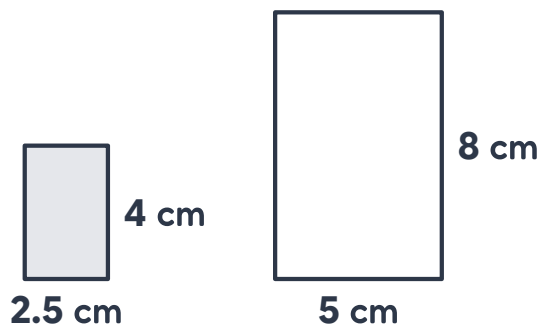
3.

Scale factor 2.5

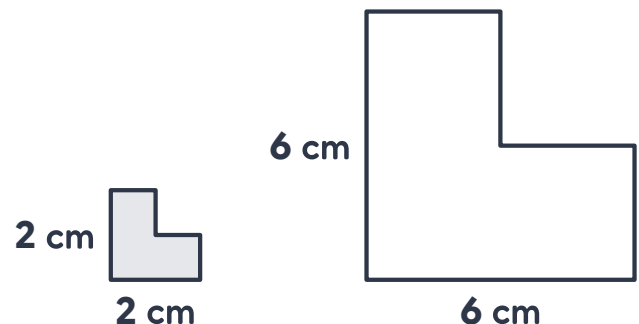
4.

Scale factor 1.5

5.

Scale factor 2

6.

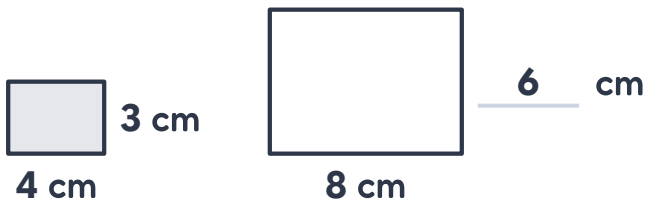
Scale factor 3

Similar Shapes

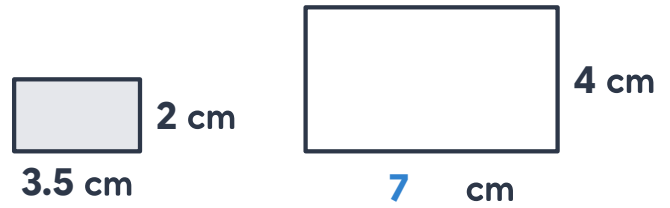
The rectangles are similar. Find the scale factor, then the missing side.

1.

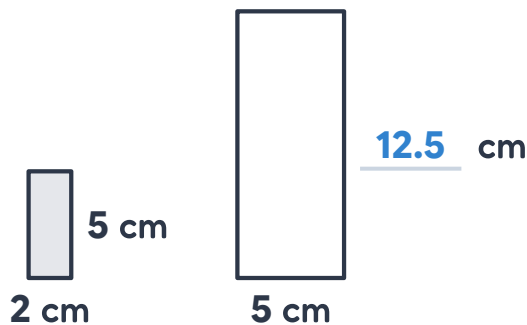
Example

Scale factor 2

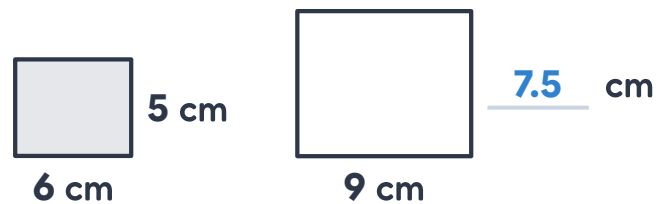
2.

Scale factor 2

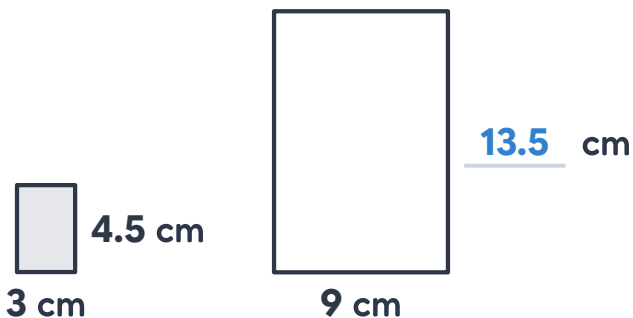
3.

Scale factor 2.5

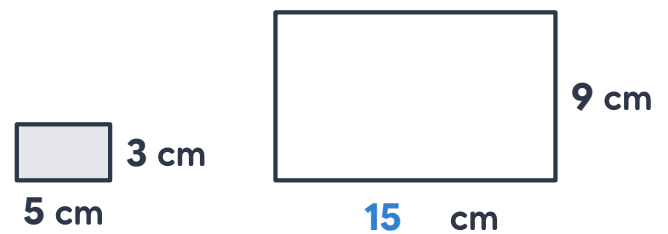
4.

Scale factor 1.5

5.

Scale factor 3

6.

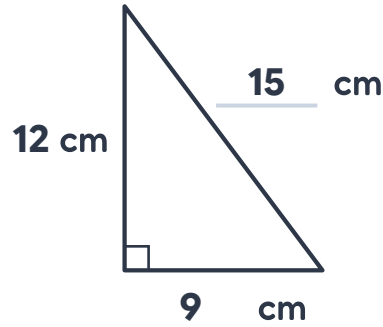
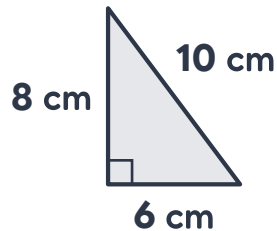
Scale factor 3

Similar Shapes

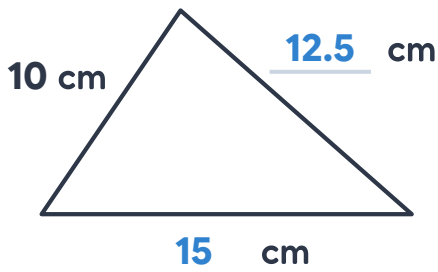
The triangles are similar. Find the scale factor, then the missing sides.

1.

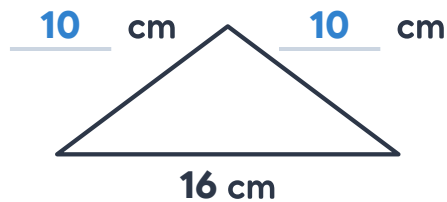
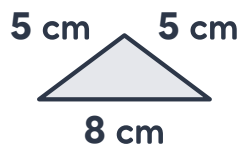
Example

Scale factor 1.5

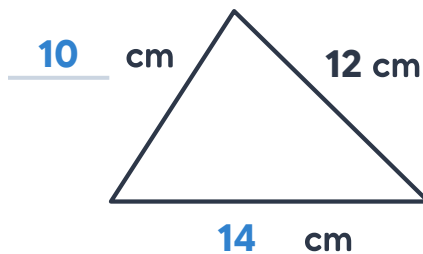
2.

Scale factor 2.5

3.

Scale factor 2

4.

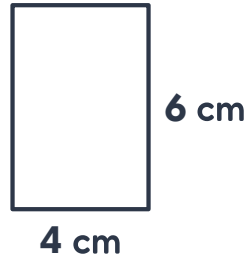
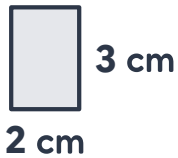
Scale factor 2

Similar Shapes

Find the scale factor for the short sides and the long sides. Similar?

1.

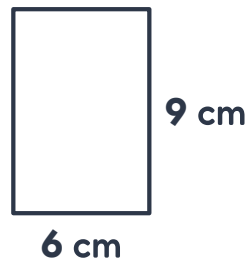
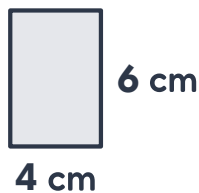
Example

Short sides $\times$ 2 Similar?Long sides $\times$ 2 **Yes** No

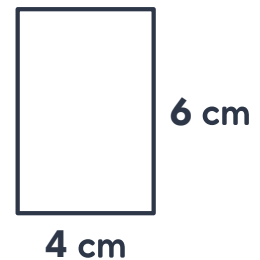
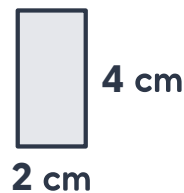
2.

Short sides $\times$ 3 Similar?Long sides $\times$ 2 Yes **No**

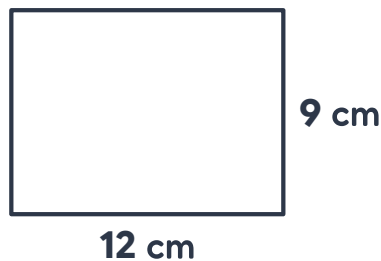
3.

Short sides $\times$ 1.5 Similar?Long sides $\times$ 1.5 **Yes** No

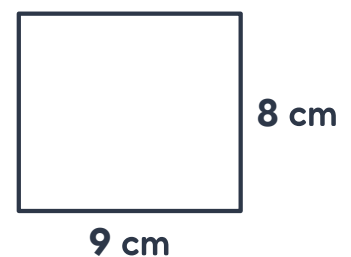
4.

Short sides $\times$ 2 Similar?Long sides $\times$ 1.5 Yes **No**

5.

Short sides $\times$ 3 Similar?Long sides $\times$ 3 **Yes** No

6.

Short sides $\times$ 2 Similar?Long sides $\times$ 1.5 Yes **No**

Similar Shapes

Use the scale factor to solve each problem.

1. A photo 10 cm by 15 cm is enlarged by scale factor 3. What size is the new photo?

Example

30 cm by 45 cm

2. A model car is 21 cm long. The real car is 20 times as long. How long is the real car in metres?

4.2 m

3. On a plan, every real length is 100 times as long. A classroom is 9 cm long on the plan. How long is the real classroom?

9 m

4. A triangle has sides of 3 cm, 5 cm and 7 cm. It is enlarged so that its shortest side is 4.5 cm. Find the scale factor and the longest side.

Scale factor 1.5

Longest side 10.5 cm

5. A rectangle is 4 cm by 7 cm. A similar rectangle has a shorter side of 10 cm. How long is its longer side?

17.5 cm

6. A lighthouse is 30 m tall. It is 50 times as tall as a model of it. How tall is the model in centimetres?

60 cm