

# SIMILAR SHAPES

Answer all of these questions. Remember to show your working out in all questions.

## MAIN QUESTIONS

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|--------------------------------------------------------------|-------------------------------------------------------------|
| 1. Shape A: side = 4cm, Shape B: corresponding side = 8cm    | 2. Shape A: side = 10cm, Shape B: corresponding side = 5cm  |
| 3. Shape A: side = 6cm, Shape B: corresponding side = 18cm   | 4. Shape A: side = 15cm, Shape B: corresponding side = 3cm  |
| 5. Shape A: side = 7cm, Shape B: corresponding side = 21cm   | 6. Shape A: side = 12cm, Shape B: corresponding side = 4cm  |
| 7. Shape A: side = 9cm, Shape B: corresponding side = 27cm   | 8. Shape A: side = 25cm, Shape B: corresponding side = 5cm  |
| 9. Shape A: side = 8cm, Shape B: corresponding side = 12cm   | 10. Shape A: side = 14cm, Shape B: corresponding side = 7cm |
| 11. Shape A: side = 11cm, Shape B: corresponding side = 33cm | 12. Shape A: side = 20cm, Shape B: corresponding side = 5cm |
| 13. Shape A: side = 16cm, Shape B: corresponding side = 24cm | 14. Shape A: side = 18cm, Shape B: corresponding side = 6cm |

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| 15. | Shape A: side = 22cm,<br>Shape B: corresponding side<br>= 11cm | 16. | Shape A: side = 30cm,<br>Shape B: corresponding side<br>= 10cm |
| 17. | Shape A: side = 13cm,<br>Shape B: corresponding side<br>= 39cm | 18. | Shape A: side = 28cm,<br>Shape B: corresponding side<br>= 7cm  |
| 19. | Shape A: side = 17cm,<br>Shape B: corresponding side<br>= 51cm | 20. | Shape A: side = 24cm,<br>Shape B: corresponding side<br>= 8cm  |
| 21. | Shape A: side = 35cm,<br>Shape B: corresponding side<br>= 7cm  | 22. | Shape A: side = 19cm,<br>Shape B: corresponding side<br>= 57cm |
| 23. | Shape A: side = 26cm,<br>Shape B: corresponding side<br>= 13cm | 24. | Shape A: side = 32cm,<br>Shape B: corresponding side<br>= 8cm  |
| 25. | Shape A: side = 21cm,<br>Shape B: corresponding side<br>= 63cm | 26. | Shape A: side = 40cm,<br>Shape B: corresponding side<br>= 10cm |
| 27. | Shape A: side = 27cm,<br>Shape B: corresponding side<br>= 9cm  | 28. | Shape A: side = 33cm,<br>Shape B: corresponding side<br>= 11cm |
| 29. | Shape A: side = 45cm,<br>Shape B: corresponding side<br>= 15cm | 30. | Shape A: side = 50cm,<br>Shape B: corresponding side<br>= 10cm |

## MASTER QUESTIONS



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- M1. Two similar triangles have corresponding sides of 6cm and 9cm.  
What is the scale factor?

- M2.** A model car is 18cm long and the real car is 4.5m long. What is the scale factor?
- M3.** Two similar rectangles have widths of 12cm and 8cm. Find the scale factor.
- M4.** A map uses a scale where 2cm represents 5km. What is the scale factor?
- M5.** Two similar pentagons have corresponding sides of 15mm and 45mm. Calculate the scale factor.
- M6.** A photograph is enlarged from 10cm by 15cm to 30cm by 45cm. What is the scale factor?
- M7.** Two similar triangles have areas of  $16\text{cm}^2$  and  $64\text{cm}^2$ . Find the scale factor of their sides.
- M8.** A model building is 25cm tall and the actual building is 50m tall. Determine the scale factor.
- M9.** Two similar hexagons have perimeters of 24cm and 36cm. Calculate the scale factor.
- M10.** A blueprint shows a room as 8cm by 6cm when the actual room is 4m by 3m. Find the scale factor.