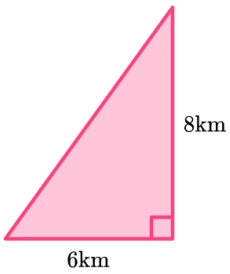
15 Pythagoras Theorem Questions and Practice Problems

1. A ship sails $6km$ East and then $8km$ North.
Find the ships' distance from its starting point.



a) $14km$

b) $10km$

c) $5.29km$

d) $2km$

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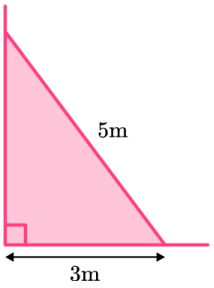
2. A ladder is $5m$ long. The base of the ladder is $3m$ from the base of a vertical wall.
How far up the wall does the ladder reach?



a) $8m$

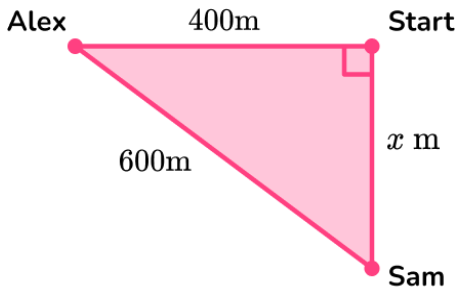
b) $5.83m$

c) $4m$

d) $16m$

15 Pythagoras Theorem Questions and Practice Problems

3. Alex and Sam start from the same point. Alex walks 400 metres west. Sam walks x metres south, until they are $600m$ apart from each other. How far does Sam walk?



a) $200m$

b) $447m$

c) $721m$

d) $1000m$

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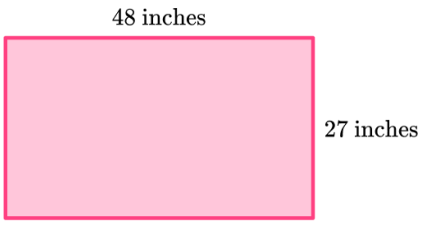
4. A television's size is the measurement from the upper left hand corner of the television to the bottom right hand corner. Find the size of this television.



a) 75 inches

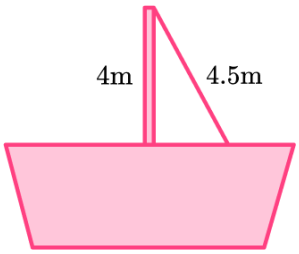
b) 150 inches

c) 39.7 inches

d) 55.1 inches

15 Pythagoras Theorem Questions and Practice Problems

5. The pole of a sailing boat is supported by a rope from the top of the pole to an anchor point on the deck. The pole is $4m$ long and the rope is $4.5m$ long. Calculate the distance from the base of the pole to the anchor point of the rope on the deck.



a) $2.06m$

b) $6.02m$

c) $8.5m$

d) $0.5m$

---

6. Work out the length of the diagonal of a square with sides $8cm$.

a) $11.3cm$

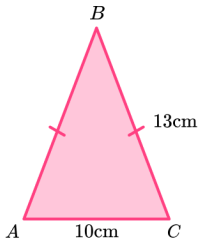
b) $16cm$

c) $8cm$

d) $12cm$

15 Pythagoras Theorem Questions and Practice Problems

7. ABC is an isosceles triangle.



Work out the height of the triangle.

a) $8cm$

b) $12cm$

c) $8.31cm$

d) $16.4cm$

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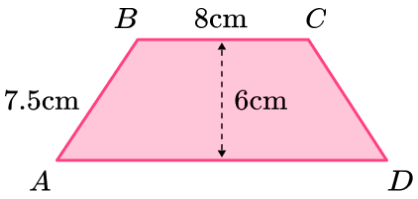
8. ABCD is an isosceles trapezium.



Work out the length of AD.

a) $4.5cm$

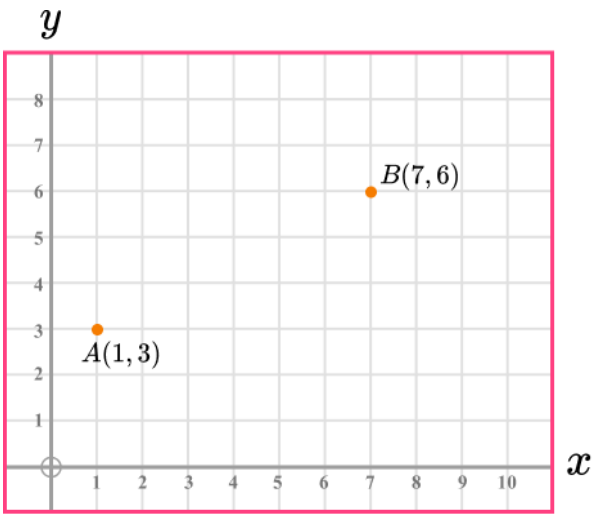
b) $12.5cm$

c) $17cm$

d) $23cm$

15 Pythagoras Theorem Questions and Practice Problems

9. Here is a cm square grid. Calculate the distance between the points A and B.



a) $9cm$

b) $5.20cm$

c) $3cm$

d) $6.71cm$

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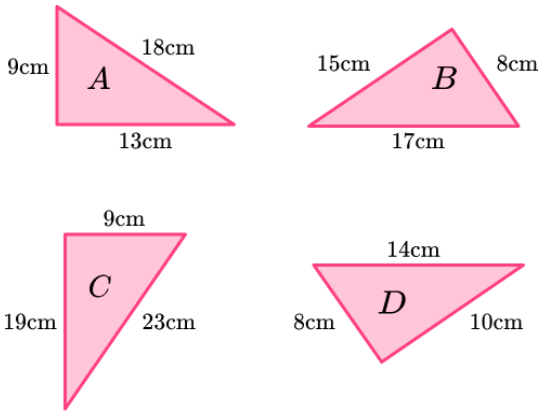
10. Which is a right angled triangle?



a) A

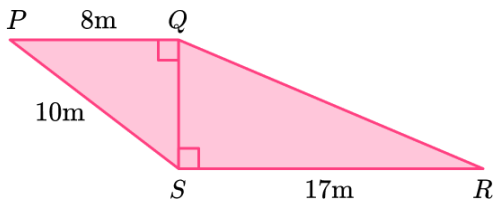
b) B

c) C

d) D

15 Pythagoras Theorem Questions and Practice Problems

11. PQRS is made from two right angled triangles.



Work out the length of QR.

a) $18.0m$

b) $6m$

c) $15.9m$

d) $21.3m$

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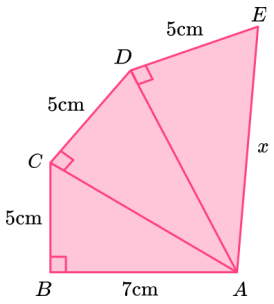
12. Here is a pattern made from right angled triangles.



Work out the length x.

a) $8.60cm$

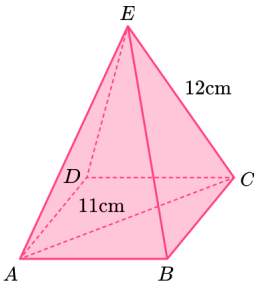
b) $16.6cm$

c) $11.1cm$

d) $8.66cm$

15 Pythagoras Theorem Questions and Practice Problems

13. Here is a pyramid.



Work out the height of the pyramid.

a) $4.80cm$

b) $16.3cm$

c) $13.2cm$

d) $10.7cm$

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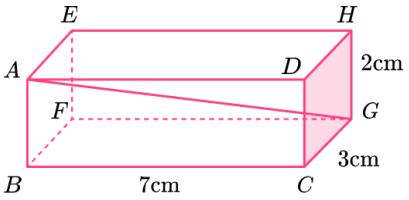
14. Here is a cuboid.



Work out the length AG.
Give your answer in its exact form.

a) $\sqrt{58}\ cm$

b) $\sqrt{62}\ cm$

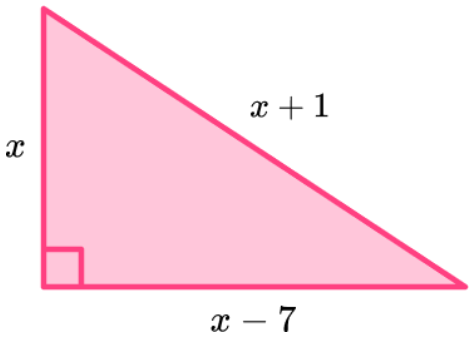
c) $\sqrt{53}\ cm$

d) $\sqrt{42}\ cm$

15 Pythagoras Theorem Questions and Practice Problems

15. Here is a right angled triangle.

Form an equation and use it to work out the value of x.



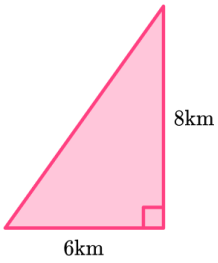
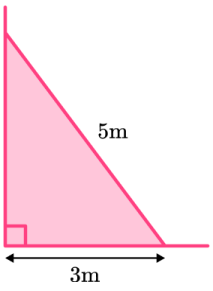
a) $4cm$

b) $10cm$

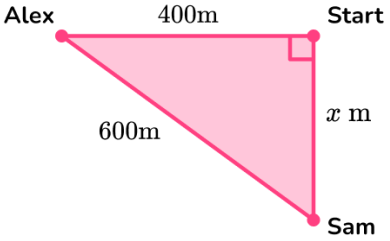
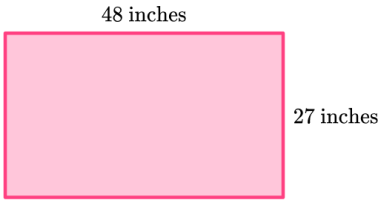
c) $17cm$

d) $12cm$

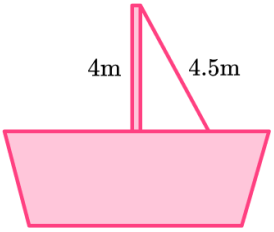
15 Pythagoras Theorem Questions and Practice Problems - Answers

	Question	Answer
1	**A ship sails $6km$ East and then $8km$ North. Find the ships' distance from its starting point.**  **a)** $14km$ **b)** $10km$ **c)** $5.29km$ **d)** $2km$	**b)** $10km$
2	**A ladder is $5m$ long. The base of the ladder is $3m$ from the base of a vertical wall. How far up the wall does the ladder reach?**  **a)** $8m$ **b)** $5.83m$ **c)** $4m$ **d)** $16m$	**c)** $4m$

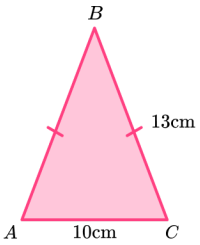
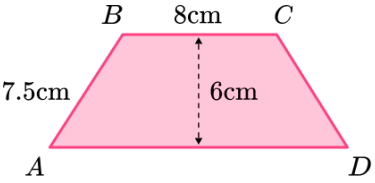
15 Pythagoras Theorem Questions and Practice Problems - Answers

3	**Alex and Sam start from the same point. Alex walks 400 metres west. Sam walks x metres south, until they are $600m$ apart from each other. How far does Sam walk?**  **a)** $200m$ **b)** $447m$ **c)** $721m$ **d)** $1000m$	**b)** $447m$
4	**A television's size is the measurement from the upper left hand corner of the television to the bottom right hand corner. Find the size of this television.**  **a)** 75 inches **b)** 150 inches **c)** 39.7 inches **d)** 55.1 inches	**d)** 55.1 inches

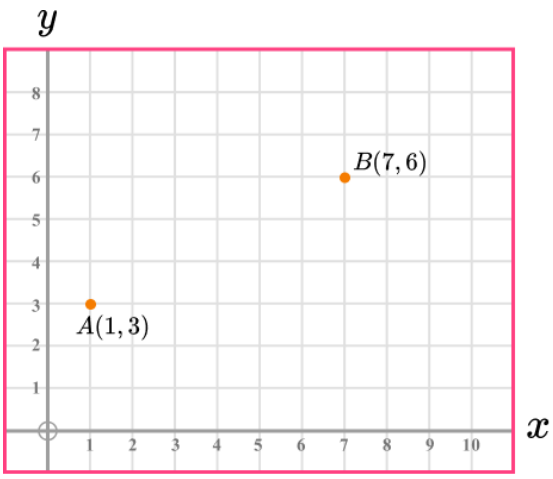
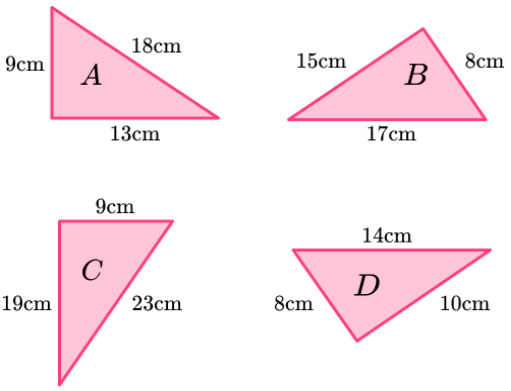
15 Pythagoras Theorem Questions and Practice Problems - Answers

5	**The pole of a sailing boat is supported by a rope from the top of the pole to an anchor point on the deck. The pole is $4m$ long and the rope is $4.5m$ long. Calculate the distance from the base of the pole to the anchor point of the rope on the deck.**  **a)** $2.06m$ **b)** $6.02m$ **c)** $8.5m$ **d)** $0.5m$	**a)** $2.06m$
6	**Work out the length of the diagonal of a square with sides $8cm$.** **a)** $11.3cm$ **b)** $16cm$ **c)** $8cm$ **d)** $12cm$	**a)** $11.3cm$

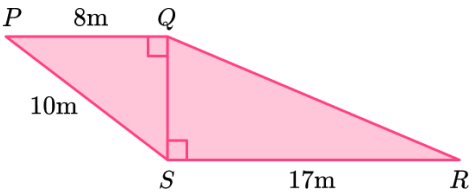
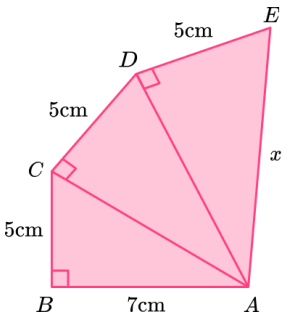
15 Pythagoras Theorem Questions and Practice Problems - Answers

7	**ABC is an isosceles triangle.**  **Work out the height of the triangle.** **a)** $8cm$ **b)** $12cm$ **c)** $8.31cm$ **d)** $16.4cm$	**b)** $12cm$
8	**ABCD is an isosceles trapezium.**  **Work out the length of AD.** **a)** $4.5cm$ **b)** $12.5cm$ **c)** $17cm$ **d)** $23cm$	**c)** $17cm$

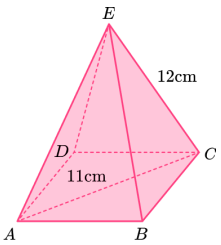
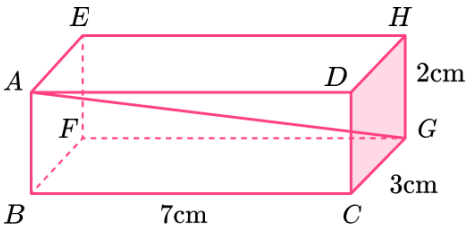
15 Pythagoras Theorem Questions and Practice Problems - Answers

9	**Here is a cm square grid. Calculate the distance between the points A and B.**  **a)** $9cm$ **b)** $5.20cm$ **c)** $3cm$ **d)** $6.71cm$	**d)** $6.71cm$
10	**Which is a right angled triangle?**  **a)** A **b)** B **c)** C **d)** D	**b)** B

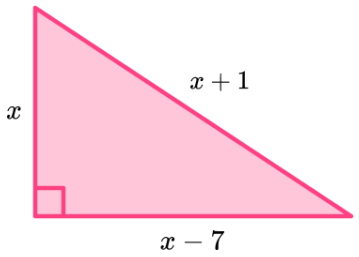
15 Pythagoras Theorem Questions and Practice Problems - Answers

11	**PQRS is made from two right angled triangles.**  **Work out the length of QR.** **a)** $18.0m$ **b)** $6m$ **c)** $15.9m$ **d)** $21.3m$	**a)** $18.0m$
12	**Here is a pattern made from right angled triangles.**  **Work out the length x.** **a)** $8.60cm$ **b)** $16.6cm$ **c)** $11.1cm$ **d)** $8.66cm$	**c)** $11.1cm$

15 Pythagoras Theorem Questions and Practice Problems - Answers

13	**Here is a pyramid.**  **Work out the height of the pyramid.** **a)** $4.80cm$ **b)** $16.3cm$ **c)** $13.2cm$ **d)** $10.7cm$	**d)** $10.7cm$
14	**Here is a cuboid.**  **Work out the length AG.** **Give your answer in its exact form.** **a)** $\sqrt{58}\ cm$ **b)** $\sqrt{62}\ cm$ **c)** $\sqrt{53}\ cm$ **d)** $\sqrt{42}\ cm$	**b)** $\sqrt{62}cm$

15 Pythagoras Theorem Questions and Practice Problems - Answers

15	**Here is a right angled triangle.** **Form an equation and use it to work out the value of x.**  **a)** $4cm$ **b)** $10cm$ **c)** $17cm$ **d)** $12cm$	**d)** $12cm$