

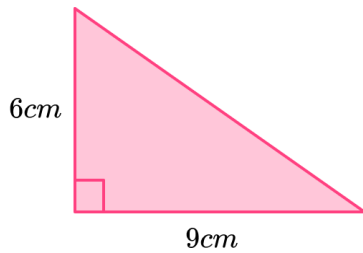
Area of a Triangle - Worksheet

Skill

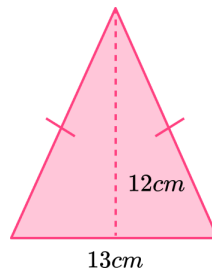
Group A - Area of mixed triangles

Find the area of the triangles below. Remember to show your working.

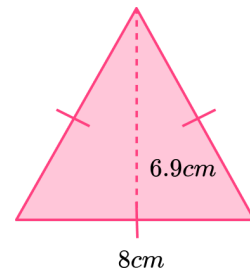
1)



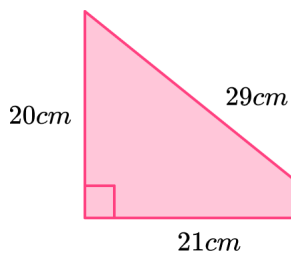
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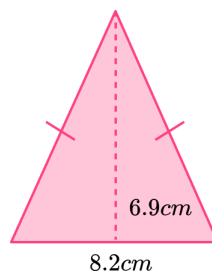
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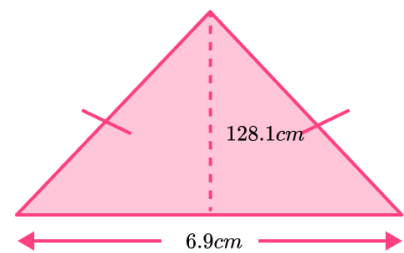
4)



5)



6)

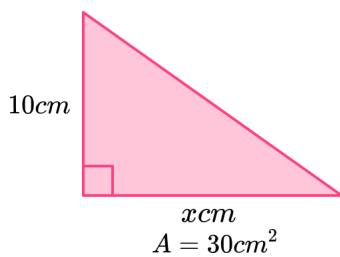


7) Triangle ABC is a right angled triangle. The hypotenuse of the triangle is 28cm and the other 2 sides are 0.13m and 24.8cm . What is the area of the triangle?

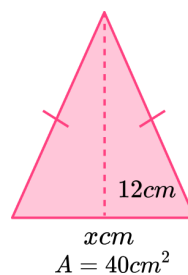
Group B - Missing lengths

Calculate the missing lengths in the triangles below. Show your working.

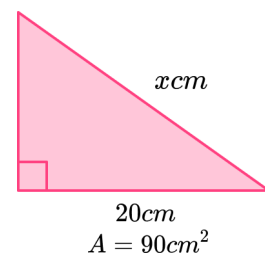
1)



2)



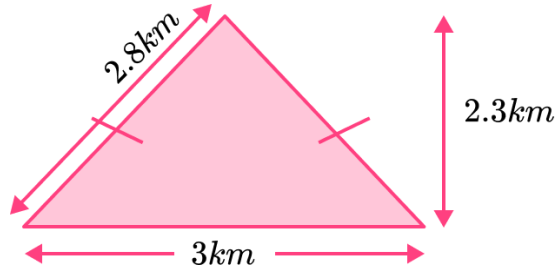
3)



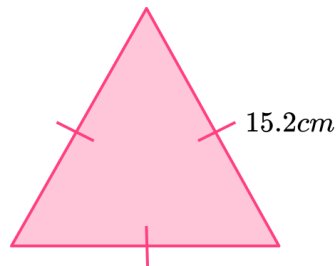
Area of a Triangle - Worksheet

Group C - Worded and Pythagoras questions

- 1) Shown below is a triangular shaped field. Each sheep needs $30m^2$ to graze. How many sheep can fit into this field?



- 2) Find the area of the triangle below.



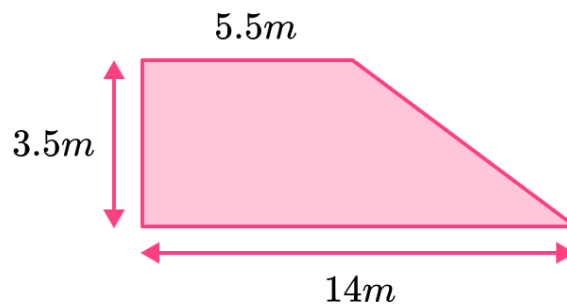
Area of a Triangle - Worksheet

Applied

- 1) Below is an isosceles triangle and a rectangle. Both shapes have equal areas. Calculate the value of y .



- 2) Draw three different triangles each with an area of 36 cm^2 .
- 3) Shown below is the area of a wall that needs to be painted. Each can of paint covers an area of 5 m^2 and costs £12.50. How much would it cost to paint the entire wall?

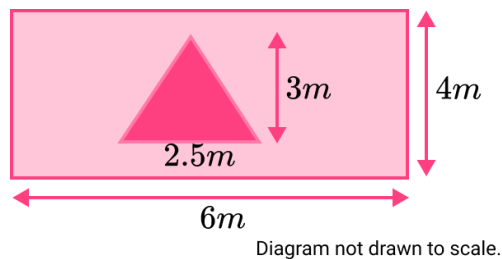


Area of a Triangle - Exam Questions

- 1) Triangle ABC has a base length of 18cm . The perpendicular height is 7cm . Find the area of the triangle.

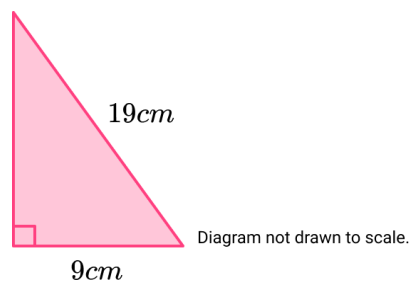
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(2 marks)

- 2) The diagram below shows a rectangular field. There is a triangular shaped gazebo in the middle of the field and the rest of the field is grass. What is the area of the grassy space?



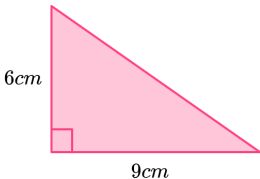
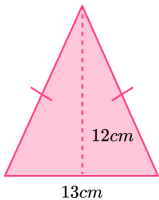
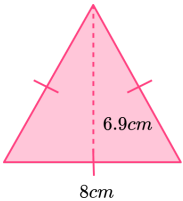
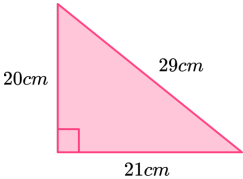
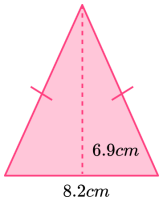
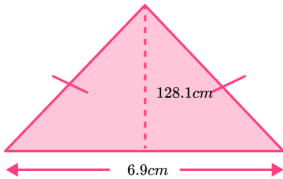
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(3 marks)

- 3) Shown below is a right angled triangle. Calculate the area of the right angled triangle.

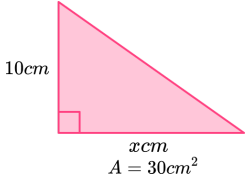
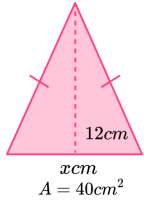
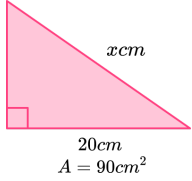
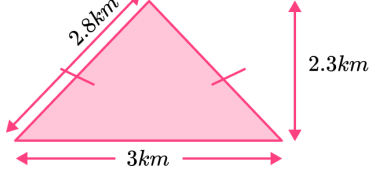
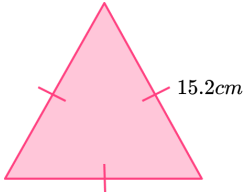


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(4 marks)


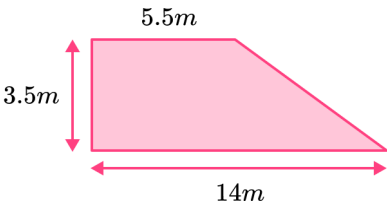
Area of a Triangle - Answers

	Question	Answer
	Skill Questions	
Group A	<p>Find the area of the triangles below. Remember to show your working.</p> <p>1) </p> <p>2) </p> <p>3) </p> <p>4) </p> <p>5) </p> <p>6) </p> <p>7) Triangle ABC is a right angled triangle. The hypotenuse of the triangle is 28 cm and the other 2 sides are 0.13 m and 24.8 cm. What is the area of the triangle?</p>	<p>1) 27 cm^2</p> <p>2) 78 cm^2</p> <p>3) 27.6 cm^2</p> <p>4) 210 cm^2</p> <p>5) 28.29 cm^2</p> <p>6) 441.945 cm^2</p> <p>7) 161.2 cm^2</p>

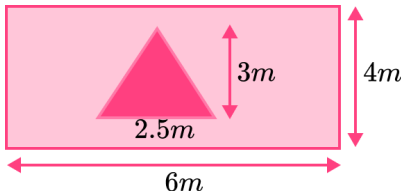
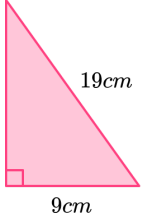
Area of a Triangle - Answers

Group B	<p>Calculate the missing lengths in the triangles below. Show your working.</p> <p>1)</p>  <p>2)</p>  <p>3)</p> 	<p>1) 6 cm</p> <p>2) 6. $\dot{6}$ cm</p> <p>3) 21.9 cm</p>
Group C	<p>1) Shown below is a triangular shaped field. Each sheep needs 30 m^2 to graze. How many sheep can fit into this field?</p>  <p>2) Find the area of the triangle below.</p> 	<p>1) 115 000 sheep</p> <p>2) $h = 13.16\text{ cm}$ 100.04 cm^2</p>

Area of a Triangle - Answers

	Question	Answer
	Applied Questions	
1)	<p>Below is an isosceles triangle and a rectangle. Both shapes have equal areas. Calculate the value of y.</p>  <p>The diagram shows a rectangle with a width of 12cm and a height of $y\text{cm}$. To its right is an isosceles triangle with a base of 0.12m and a height of 0.1m. A dashed vertical line indicates the height of the triangle.</p>	5 cm
2)	<p>In the space below draw three different triangles each with an area of 36 cm^2.</p>	<p>Answers may vary:</p> <p>$b = 12\text{ cm}, h = 6\text{ cm};$ $b = 9\text{ cm}, h = 8\text{ cm};$ $b = 16\text{ cm}, h = 4.5\text{ cm}.$</p>
3)	<p>Shown below is the area of a wall that needs to be painted. Each can of paint covers an area of 5 m^2 and costs £12.50. How much would it cost to paint the entire wall?</p>  <p>The diagram shows a trapezoidal wall. The top horizontal edge is labeled 5.5m. The bottom horizontal edge is labeled 14m. The vertical height on the left side is labeled 3.5m.</p>	<p>Area of the wall = 34.125m^2 $34.125 \div 5 \approx 7\text{ cans}$ $7 \times 12.5 = \text{£}87.50$</p>

Area of a Triangle - Mark Scheme

	Question	Answer	
	Exam Questions		
1)	Triangle ABC has a base length of 18 cm . The perpendicular height is 7 cm . Find the area of the triangle.	$\frac{18 \times 7}{2}$ 63cm^2	(1) (1)
2)	<p>The diagram below shows a rectangular field. There is a triangular shaped gazebo in the middle of the field and the rest of the field is grass. What is the area of the grassy space?</p>  <p style="text-align: center; font-size: small;">Diagram not drawn to scale.</p>	$\frac{2.5 \times 3}{2} = 3.75$ $24 - 3.75 \text{ oe}$ 20.25m^2	(1) (1) (1)
3)	<p>Shown below is a right angled triangle. Calculate the area of the right angled triangle.</p>  <p style="text-align: center; font-size: small;">Diagram not drawn to scale.</p>	$\sqrt{19^2 - 9^2} \text{ oe}$ $h = 16.73\text{ cm}$ $\frac{16.73 \times 9}{2} \text{ oe}$ $75.299... \text{ cm}^2$	(1) (1) (1) (1)

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