



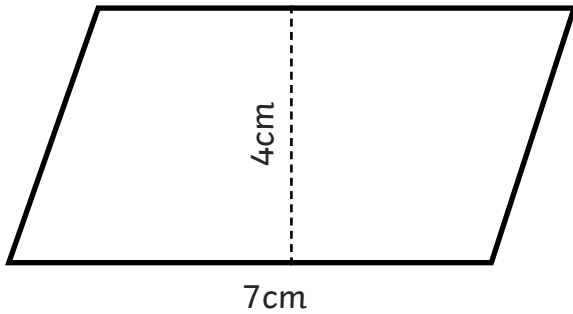
# Area of Parallelograms

I can find the area of parallelograms.



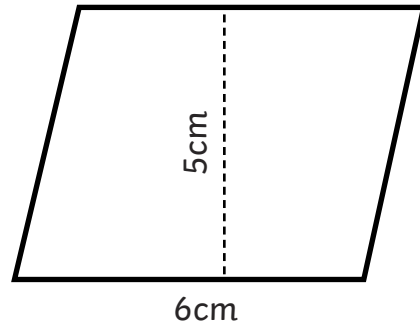
Find the area of these parallelograms:

1.



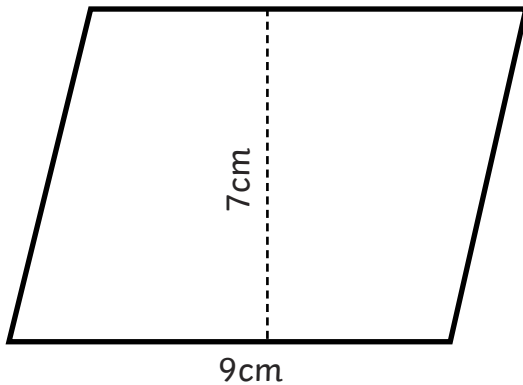
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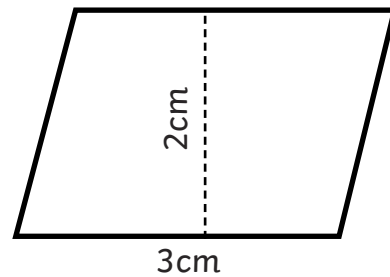
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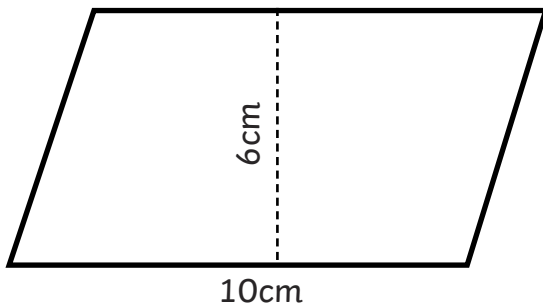
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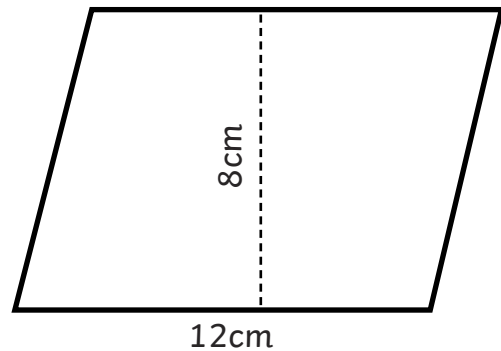
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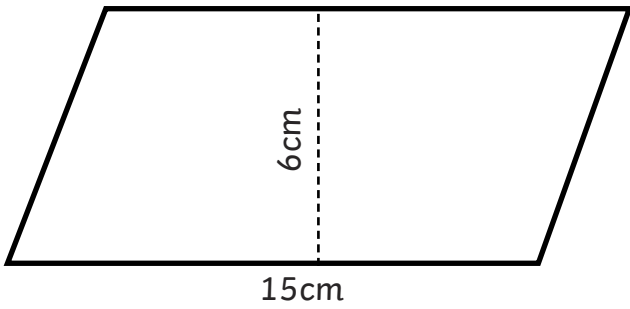
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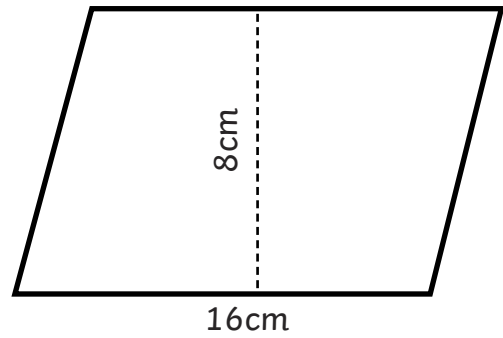


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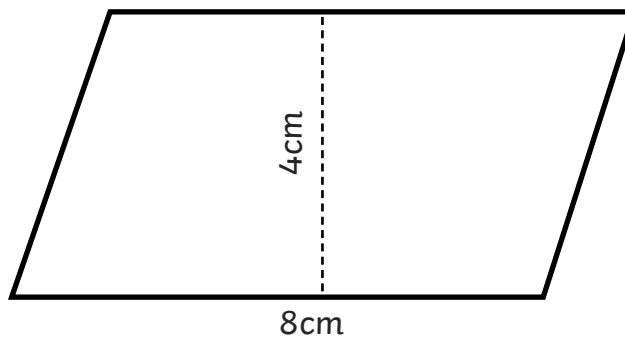


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9. Explain why the area of a parallelogram is the length of the base multiplied by the height. Draw a diagram to help your explanation.

Blank space for drawing a diagram to explain the area of a parallelogram.

10. Change one of the measurements of this parallelogram so that it has an area of  $40\text{cm}^2$ .





# Area of Parallelograms **Answers**

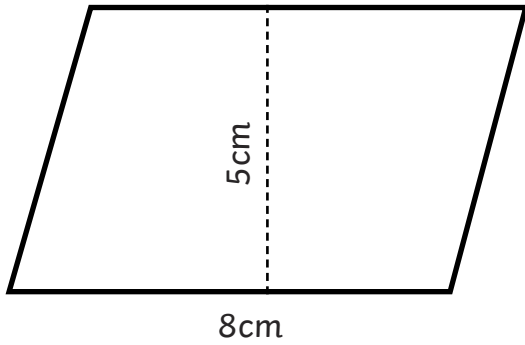
Question	Answer
1.	$28\text{cm}^2$
2.	$30\text{cm}^2$
3.	$63\text{cm}^2$
4.	$6\text{cm}^2$
5.	$60\text{cm}^2$
6.	$96\text{cm}^2$
7.	$90\text{cm}^2$
8.	$128\text{cm}^2$
9.	Explain why the area of a parallelogram is the length of the base multiplied by the height. Draw a diagram to help your explanation.
	<i>Explanation and drawings show an understanding that if you cut off a right-angled triangle from one side of the parallelogram and place it on the other side, you would have a rectangle and the area would be length <math>\times</math> height.</i>
10.	Change the one of the measurements of this parallelogram so that it has an area of $40\text{cm}^2$ .
	<i>The new shape could be <math>4\text{cm} \times 10\text{cm}</math> or <math>8\text{cm} \times 5\text{cm}</math>.</i>

# Area of Parallelograms

I can find the area of parallelograms.

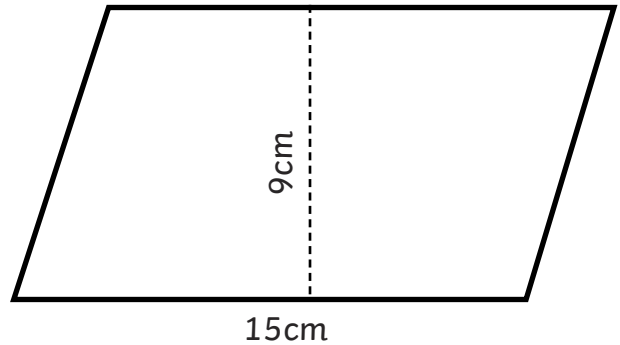
Find the area of these parallelograms:

1.



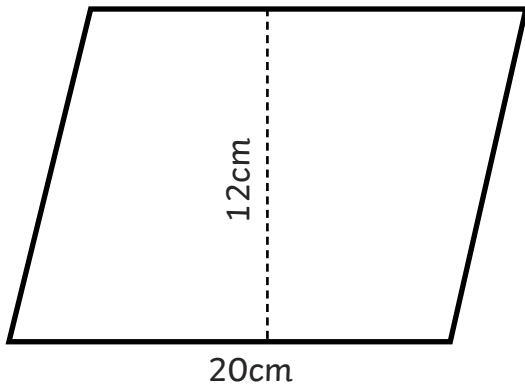
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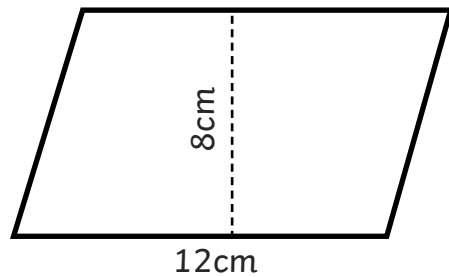
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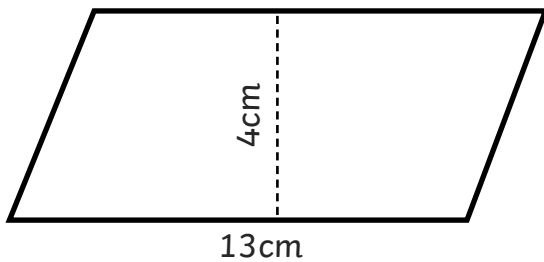
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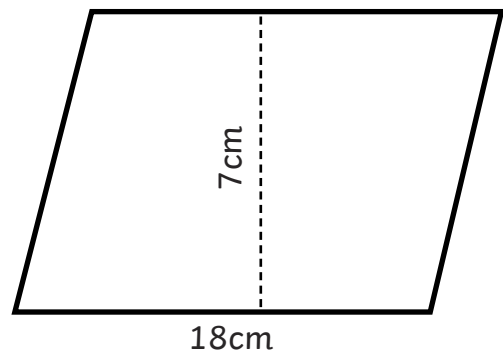
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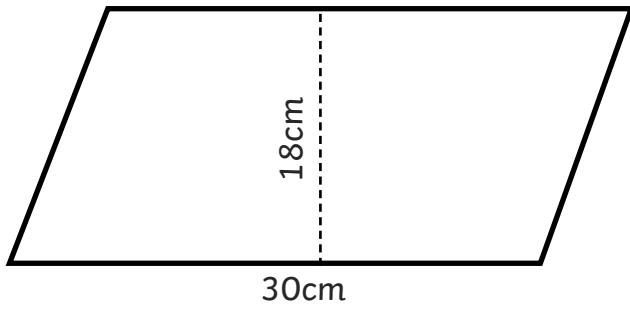
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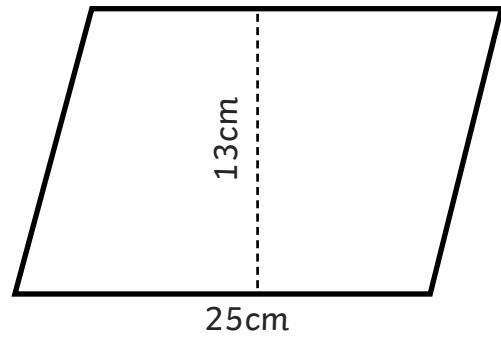


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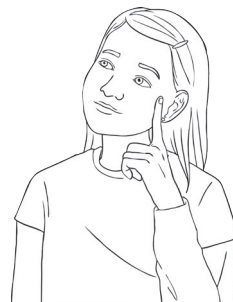
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9. Explain why the area of a parallelogram is the length of the base multiplied by the height. Draw a diagram to help your explanation.

Blank space for drawing a diagram to explain the area of a parallelogram.

10. Lena and Trishna have each drawn a parallelogram. Lena's parallelogram has a base of 18cm and height 9cm. Trishna's parallelogram has a base of 12cm and height 11cm.

My parallelogram has the greatest area. It is more than  $25\text{cm}^2$  bigger than Trishna's parallelogram.



Is Lena correct?



# Area of Parallelograms **Answers**

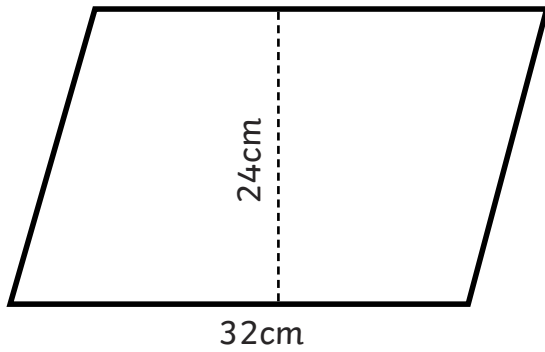
Question	Answer
1.	$40\text{cm}^2$
2.	$135\text{cm}^2$
3.	$240\text{cm}^2$
4.	$96\text{cm}^2$
5.	$52\text{cm}^2$
6.	$126\text{cm}^2$
7.	$540\text{cm}^2$
8.	$325\text{cm}^2$
9.	Explain why the area of a parallelogram is the length of the base multiplied by the height. Draw a diagram to help your explanation.
	<i>Explanation and drawings show an understanding that if you cut off a right-angled triangle from one side of the parallelogram and place it on the other side, you would have a rectangle and the area would be length <math>\times</math> height.</i>
10.	Lena and Trishna have each drawn a parallelogram. Lena's parallelogram has a base of 18cm and height 9cm. Trishna's parallelogram has a base of 12cm and height 11cm. Is Lena correct?
	<i>Lena's parallelogram has an area of <math>162\text{cm}^2</math>. Trishna's parallelogram has an area of <math>132\text{cm}^2</math>. The difference between the areas of the two parallelograms is <math>30\text{cm}^2</math>. This is greater than <math>25\text{cm}^2</math>. Lena is correct.</i>

# Area of Parallelograms

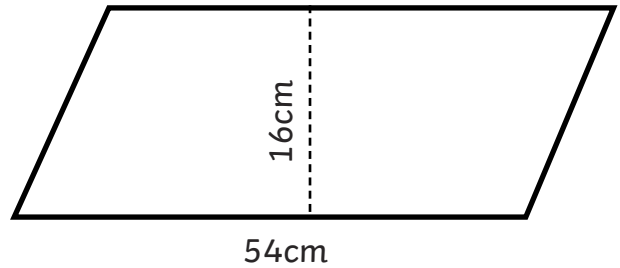
I can find the area of parallelograms.

Find the area of these parallelograms:

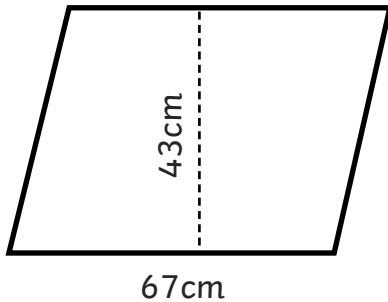
1.



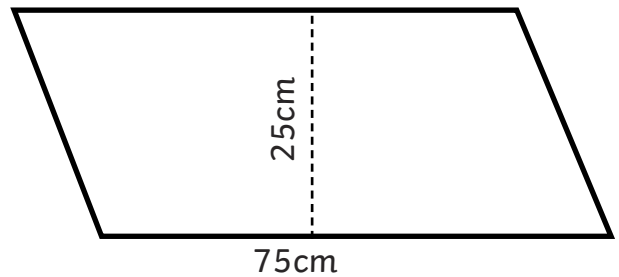
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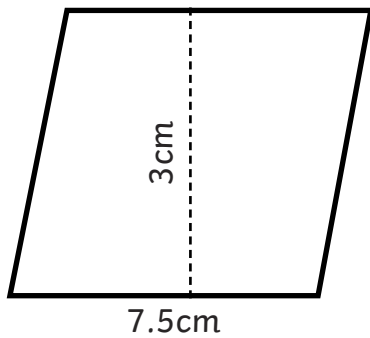
3.



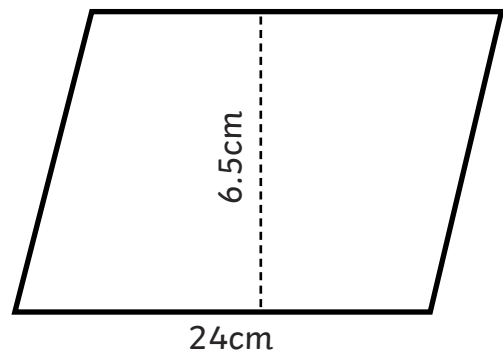
4.



5.

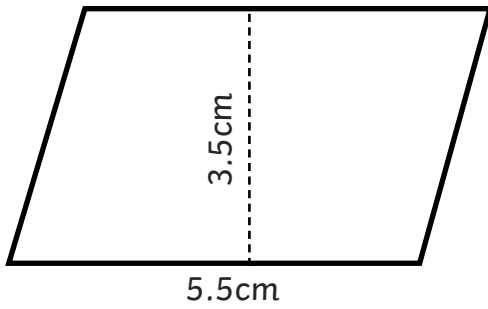


6.



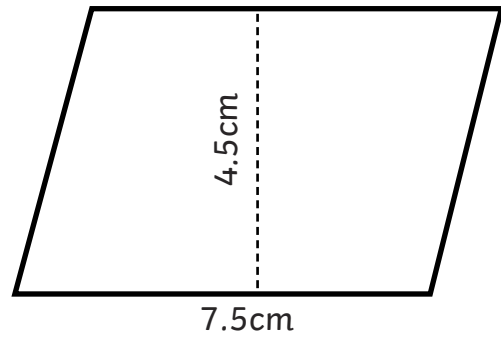


7.



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8.



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9. Explain why the area of a parallelogram is the length of the base multiplied by the height. Draw a diagram to help your explanation.

Blank space for drawing a diagram to explain the area of a parallelogram.

10. Katie says, "I have drawn a parallelogram which has a base of 12cm and height 8cm. If I doubled either the base or the height, the area would be double the area of my first parallelogram." Is Katie correct? Show how you know.





# Area of Parallelograms Answers

Question	Answer
1.	$768\text{cm}^2$
2.	$864\text{cm}^2$
3.	$2881\text{cm}^2$
4.	$1875\text{cm}^2$
5.	$22.5\text{cm}^2$
6.	$156\text{cm}^2$
7.	$19.25\text{cm}^2$
8.	$33.75\text{cm}^2$
9.	Explain why the area of a parallelogram is the length of the base multiplied by the height. Draw a diagram to help your explanation.
	<i>Explanation and drawings show an understanding that if you cut off a right-angled triangle from one side of the parallelogram and place it on the other side, you would have a rectangle and the area would be length <math>\times</math> height.</i>
10.	Katie says 'I have drawn a parallelogram which has a base of 12cm and height 8cm. If I doubled either the base or the height, the area would be double the area of my first parallelogram.' Is Katie correct? Show how you know.
	<i>Katie is correct. The original parallelogram has an area of <math>96\text{cm}^2</math> (<math>12\text{cm} \times 8\text{cm}</math>). If you doubled the base, the area would be <math>24\text{cm} \times 8\text{cm} = 192\text{cm}^2</math>. If you doubled the height, the area would be <math>12\text{cm} \times 16\text{cm} = 192\text{cm}^2</math>. <math>192\text{cm}^2</math> is double <math>96\text{cm}^2</math>.</i>