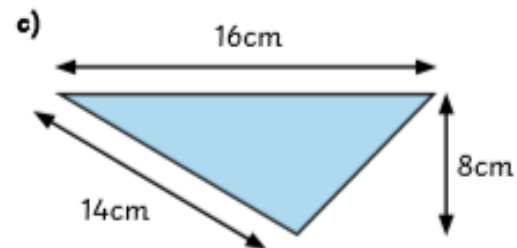
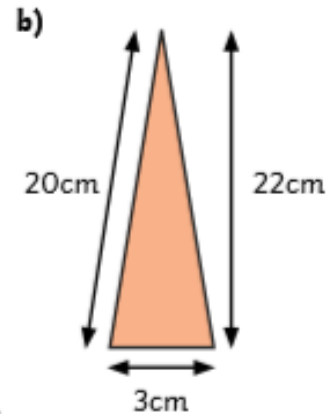
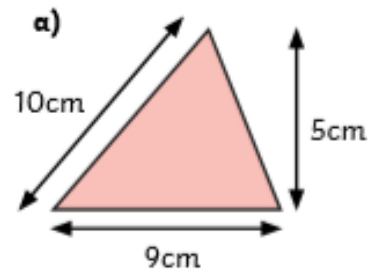


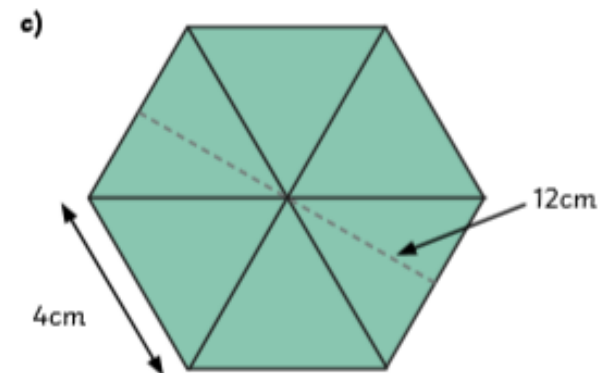
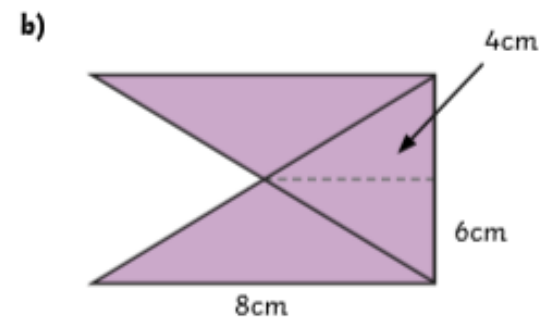
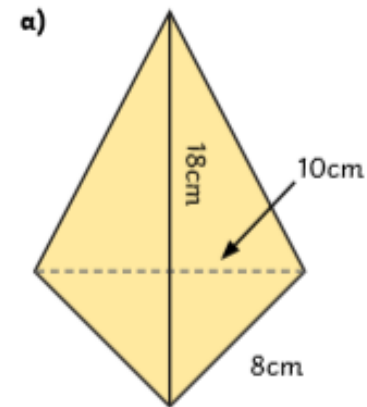


Use the formula **base \times height \div 2** to calculate the area of a triangle.

- 1) Calculate the area of each of these triangles. Remember to think carefully about which measurements represent the perpendicular height.



- 2) Give the total area of each of these shapes.

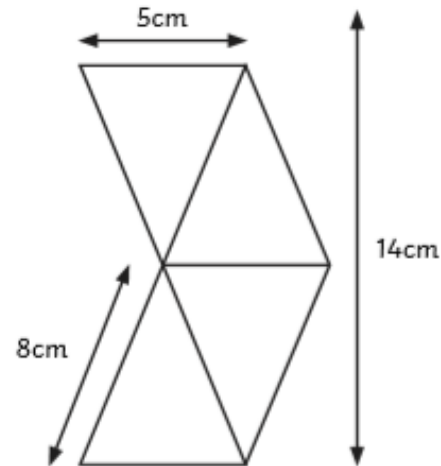




Use the formula **base × height ÷ 2** to calculate the area of a triangle.



- 1) Anna, Jack and Pasha are working out the area of this shape that is made from four identical triangles.



They each start by calculating the area of one triangle.

- a) Which child has used the correct calculation to find the area of one triangle? What mistakes have the other two children made?

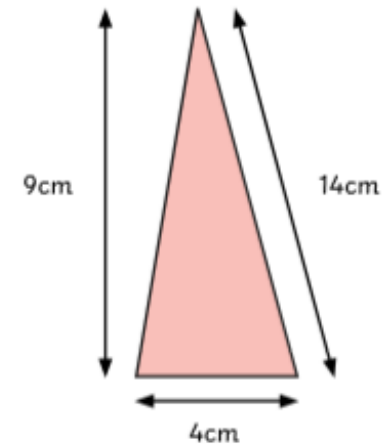
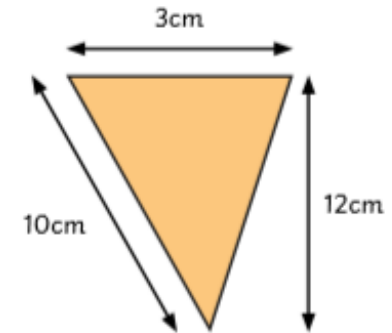
Anna: $5 \times 8 \div 2 = 15\text{cm}^2$

Jack: $5 \times 14 \div 2 = 35\text{cm}^2$

Pasha: $5 \times 7 \div 2 = 17.5\text{cm}^2$

- b) What is the area of the whole shape?

- 2) True or false? Both triangles have the same area.

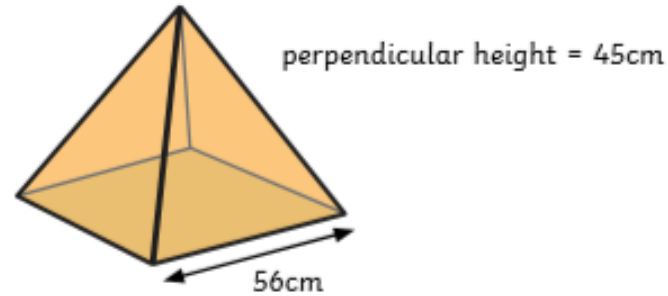




Use the formula **base \times height $\div 2$** to calculate the area of a triangle.



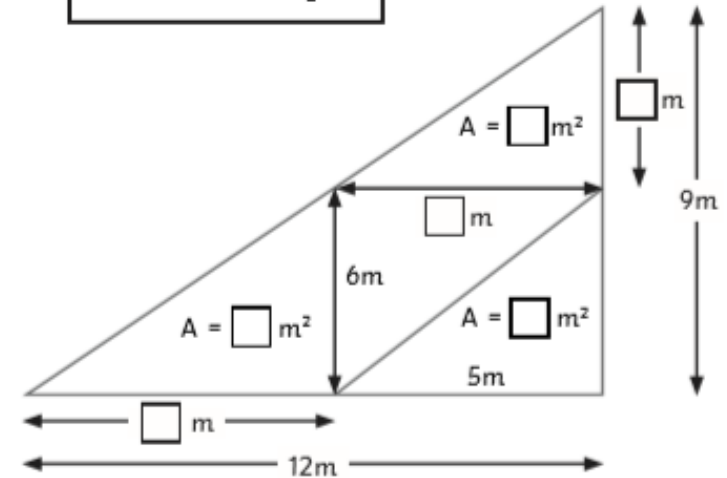
- 1) Year 6 are making a pyramid out of cardboard for their ancient Egypt topic.



How many square centimetres of cardboard will they need to build the whole pyramid?

- 2) This shape is made from different triangles. Find each of the missing measurements.

A = area of each individual triangle



ANSWERS

1) a) $9 \times 5 \div 2 = 22.5\text{cm}^2$

b) $3 \times 22 \div 2 = 33\text{cm}^2$

c) $16 \times 8 \div 2 = 64\text{cm}^2$

2) a) $18 \times 5 \div 2 = 45\text{cm}^2$

$$45\text{cm}^2 \times 2 = 90\text{cm}^2$$

$$\text{Area} = 90\text{cm}^2$$

b) $6 \times 4 \div 2 = 12\text{cm}^2$

$$8 \times 3 \div 2 = 12\text{cm}^2 \text{ (x 2)}$$

$$12\text{cm}^2 + 12\text{cm}^2 + 12\text{cm}^2 = 36\text{cm}^2$$

$$\text{Area} = 36\text{cm}^2$$

c) One triangle has an area of $4 \times 6 \div 2 = 12\text{cm}^2$

$$12\text{cm}^2 \times 6 = 72\text{cm}^2$$

$$\text{Area} = 72\text{cm}^2$$



1) a) *Pasha has used the correct calculation.*

Anna has incorrectly multiplied the base by the side length 8cm, rather than by the perpendicular height.

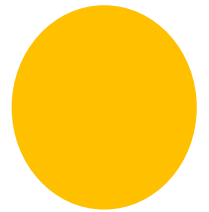
Jack has incorrectly multiplied the base by the perpendicular height of two triangles. He needs to halve this in order to find the height of one triangle.

b) $17.5\text{cm}^2 \times 4 = 70\text{cm}^2$

2) *True. Both triangles have an area of 18cm^2 .*

$$4 \times 9 \div 2 = 18\text{cm}^2$$

$$3 \times 12 \div 2 = 18\text{cm}^2$$



- 1) One triangle = $(56\text{cm} \times 45\text{cm}) \div 2 = 1260\text{cm}^2$
Four triangles = $1260\text{cm}^2 \times 4 = 5040\text{cm}^2$
Square base = $56\text{cm} \times 56\text{cm} = 3136\text{cm}^2$
Whole pyramid = $5040\text{cm}^2 + 3136\text{cm}^2 = 8176\text{cm}^2$

2)

