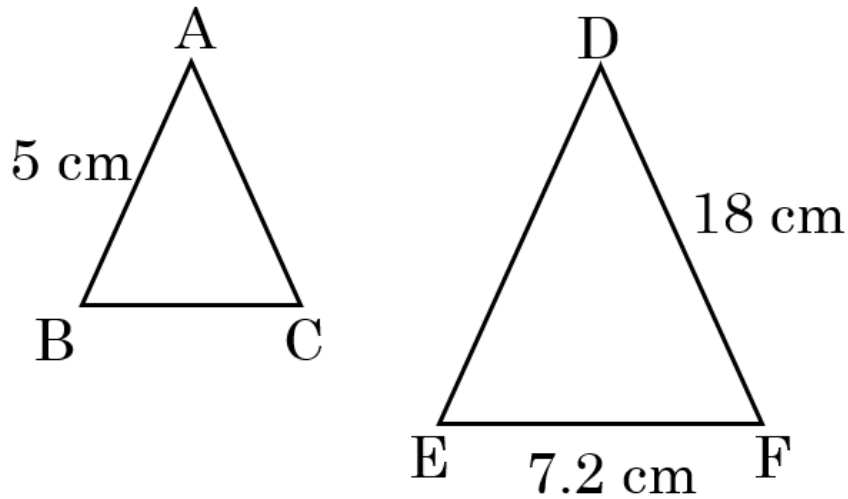


Similar Shapes (Lengths) Exam Practice



Q1. The two isosceles triangles shown below are both similar.



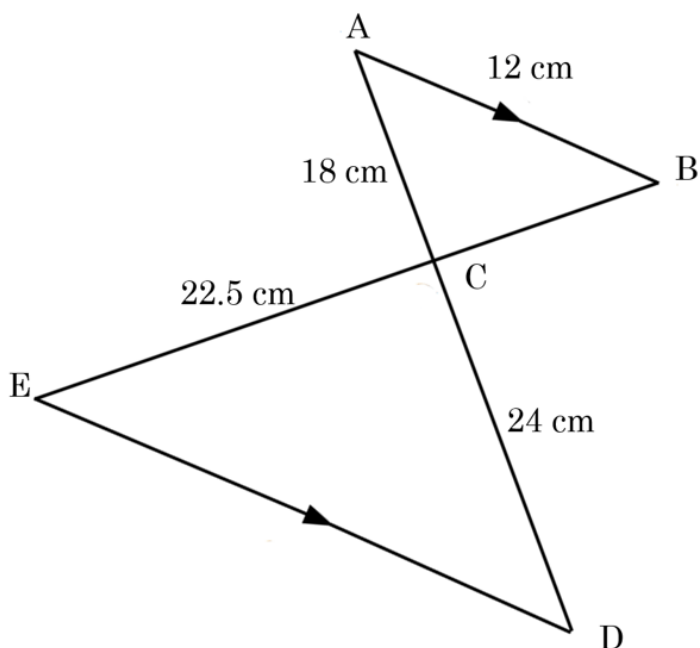
Find the perimeter of triangle ABC.

Answer: _____

(2 marks)



Q2. Below, triangles ABC and CDE are similar.



a) Find length DE

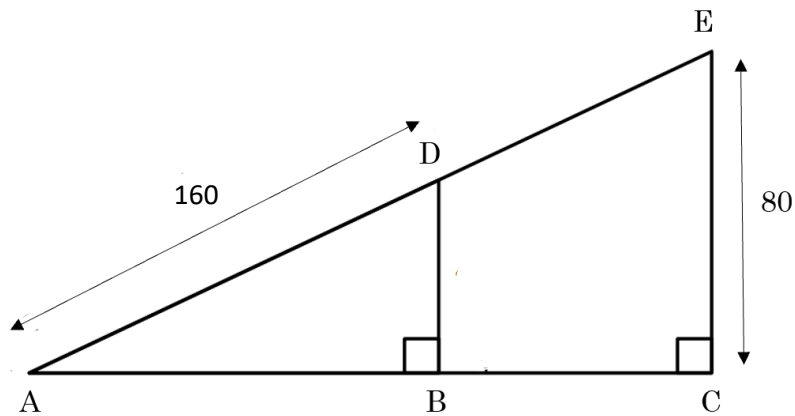
Answer: _____
(2 marks)

b) Find the perimeter of shape ABCDE

Answer: _____
(3 marks)



Q3. Below AD to AE is in the ratio 8:11



a) Find DB to 1 d.p.

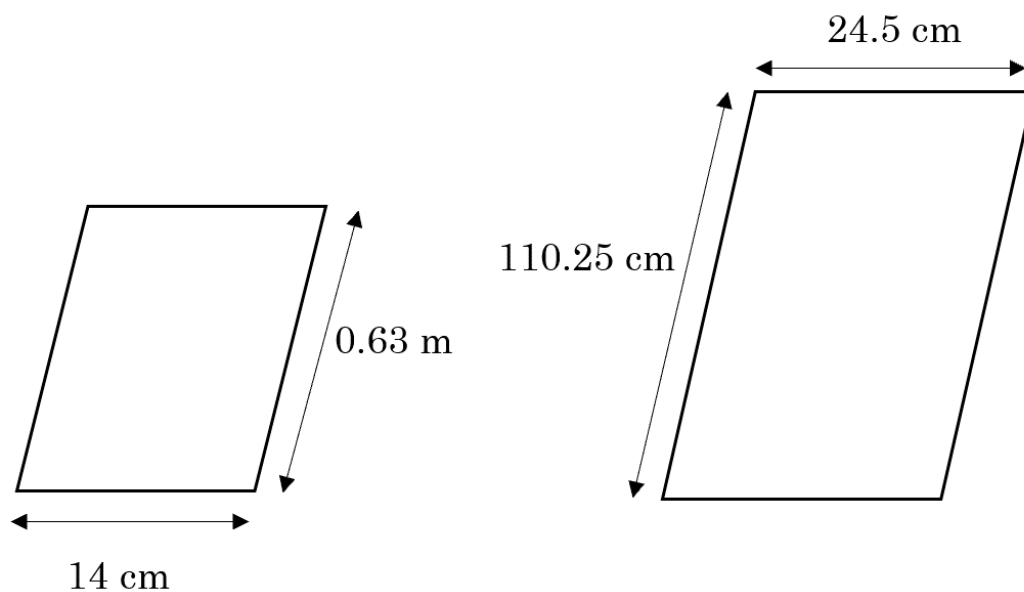
Answer: _____
(3 marks)

b) Find angle AEC to 1 d.p.

Answer: _____
(3 marks)



Q4. Below are 2 parallelograms. Decide if they are similar or not.
You must show your reasoning carefully.

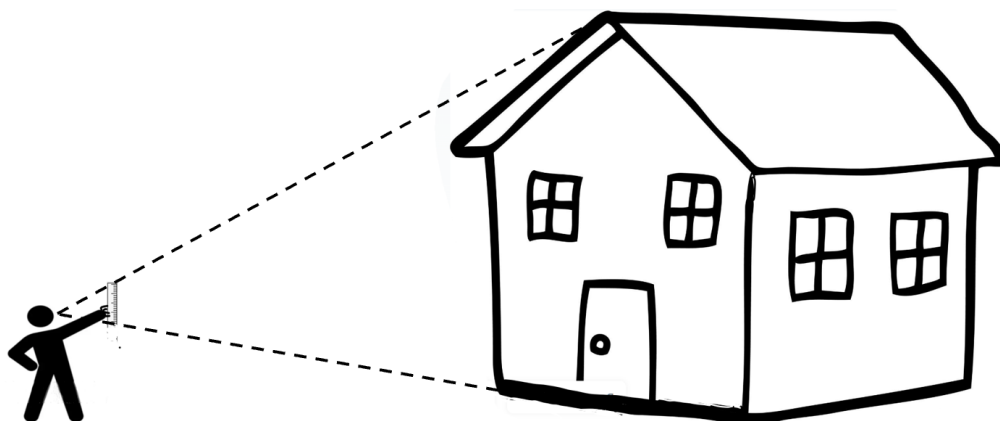


Answer: _____

(3 marks)



Q5. Bill estimates the height of his house by holding a ruler vertically so that the height of the house is exactly covered by the ruler:

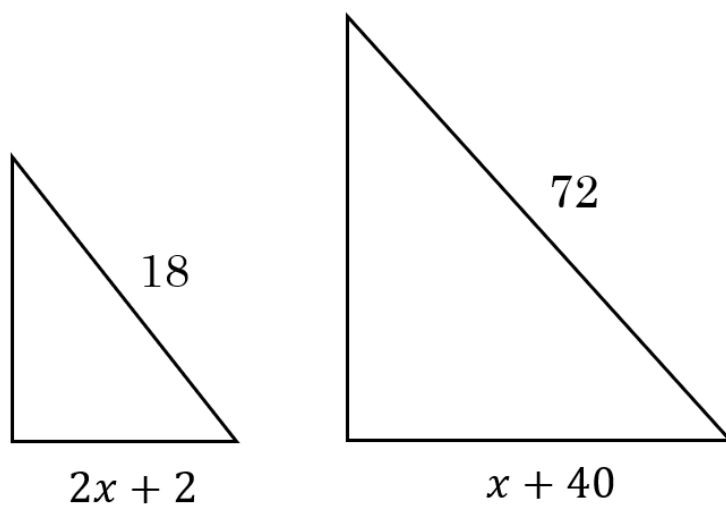


Bill stands 18 m from his house, and the distance from his eyes to the ruler is 40 cm. The ruler he uses is 30 cm long. Work out an estimate for the height of his house in meters.

Answer: _____
(3 marks)



Q6. The two triangles below are similar.



a) Find the exact value of x

Answer: _____
(3 marks)

b) Find the area of the small triangle to 1 d.p.

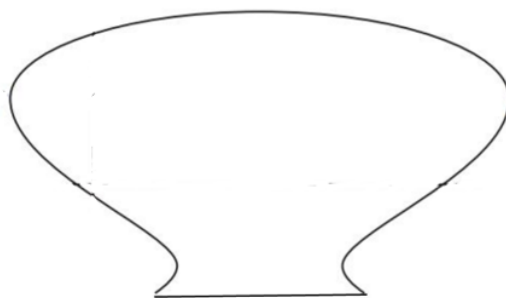
Answer: _____
(3 marks)



Q7. Below are two similar shapes. The perimeter of the large shape is 50% more than the perimeter of the smaller shape.
Find the length of x



15 cm



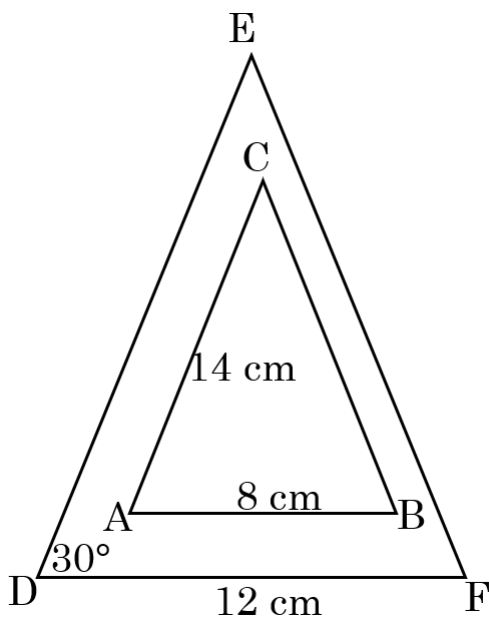
x cm

Answer: _____

(3 marks)



Q8. Below, $\angle DEF$ is 30° , $AB = 14\text{cm}$, $AC = 14\text{cm}$, and $DF = 12\text{ cm}$.



Determine if ABC is similar to DEF . You must show your working.

Answer: _____
(3 marks)