

Geometry 2F Assessment

THE ANSWERS

Foundation Level



1 - 12



13 - 17

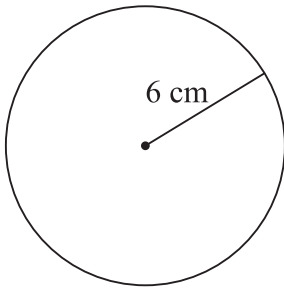
Clip	Grade	Title of clip	Question(s)	Marked out of	Score	%
117.	3	Area of a Circle	1, 13, 14	7	___	___
118.	3	Circumference of a Circle	2, 13	4	___	___
119.	3	Volume of a Prism	3	2	___	___
120.	3	Angles and Parallel Lines.	4	3	___	___
121.	3	Angles in a Triangle	5	2	___	___
122.	3	Properties of Special Triangles.	5	2	___	___
123.	3	Angle Sum of Polygons	6	2	___	___
124.	3	Bearings	7	3	___	___
145.	4	Bisecting an Angle	8	3	___	___
146.	4	Constructing Perpendiculars.	9	3	___	___
147.	4	Draw a Triangle Using Compasses	10	3	___	___
148.	4	Enlargements	11	3	___	___
149.	4	Tangents, Arcs, Sectors and Segments	12	4	___	___
150.	4	Pythagoras' Theorem	15 - 17	7	___	___

Out of 48

TOTAL SCORE _____

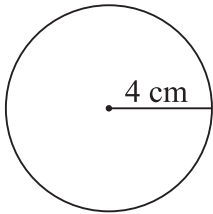
Final Percentage %

- 1) Find the area of this circle, leaving your answer in terms of π .



Area = 36 π cm² 2

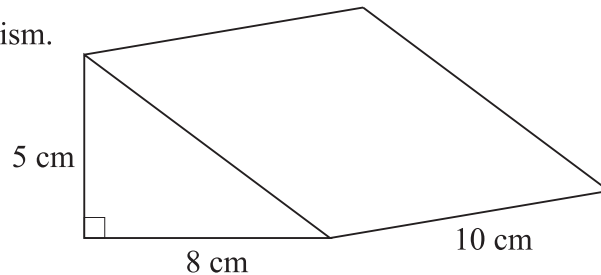
- 2) Find the circumference of this circle, leaving your answer in terms of π .



Circumference = 8 π cm 2

- 3) Find the volume of this triangular prism.

Volume is 200 cm³ 2



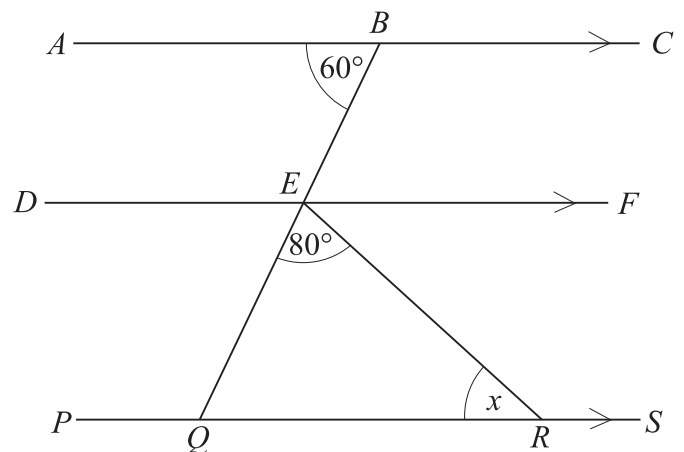
- 4) Work out the size of the angle marked x .

Give reasons for each stage of your working. 3

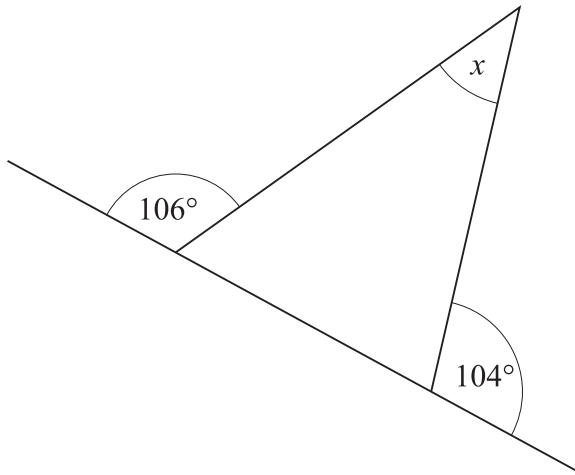
$x = 40^\circ$ with two valid steps such as:

Angle $BQR = 60^\circ$ (alternate angles)

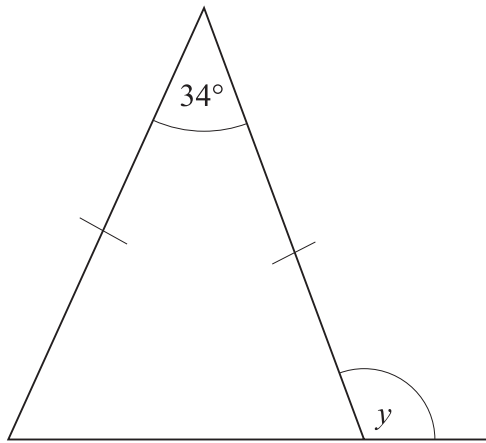
$x = 40^\circ$ (angles in triangle add up to 180°)



5) Work out the size of the angles marked x and y .



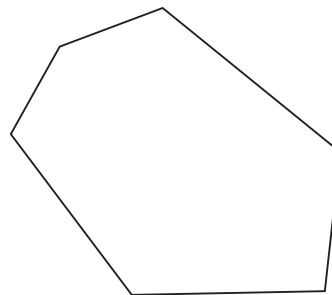
a) Angle x is 30° 2



b) Angle y is 107° 2

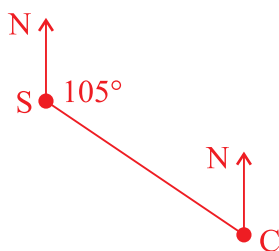
6) Find the sum of the internal angles of this hexagon.

Sum of the angles is 720° 2



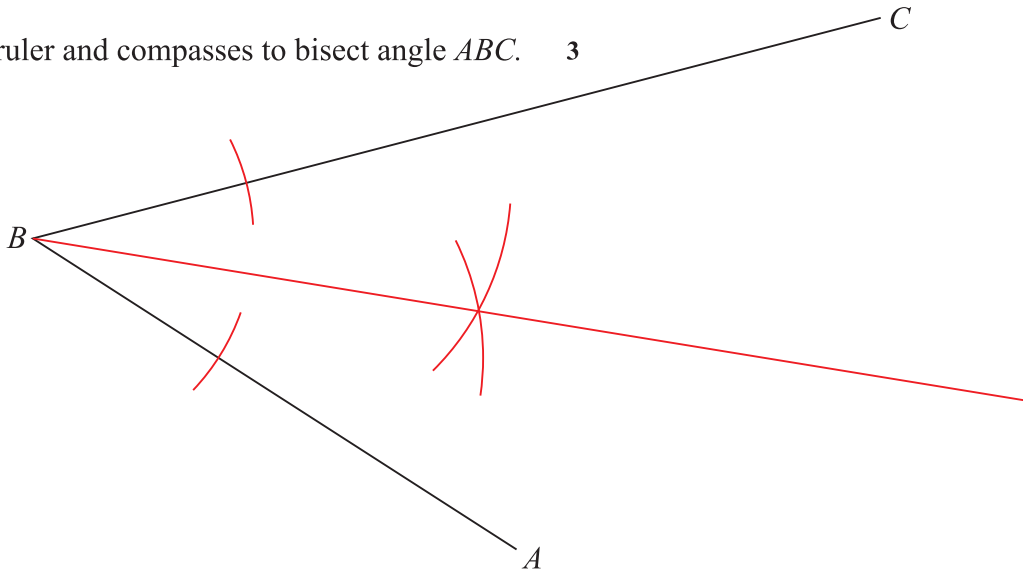
7) The bearing of a church from a school is 105° .

Make a sketch of this and use your sketch to help calculate the bearing of the school from the church.

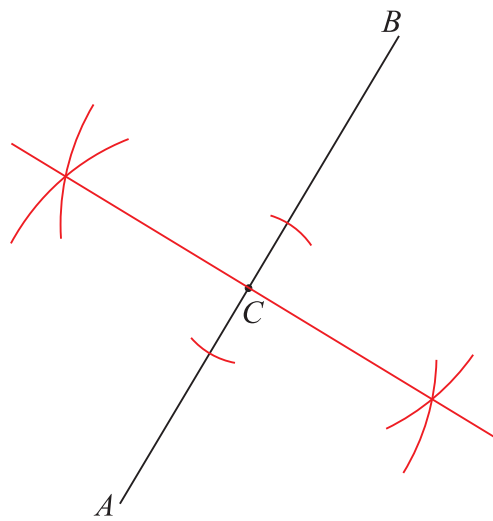


The bearing of the school from the church is 285° 3

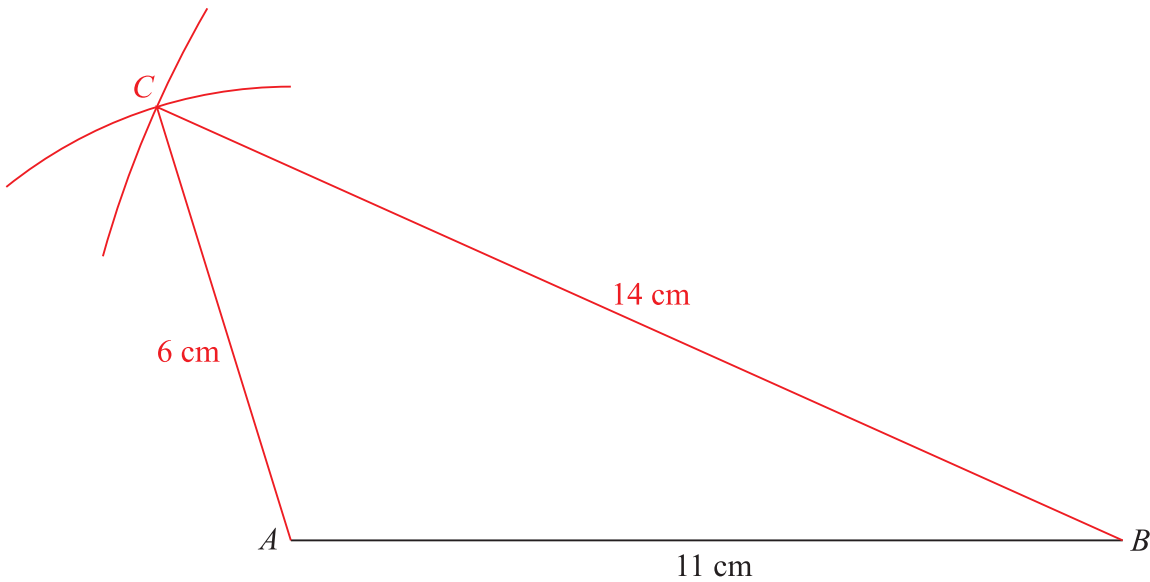
- 8) Use ruler and compasses to bisect angle ABC . 3



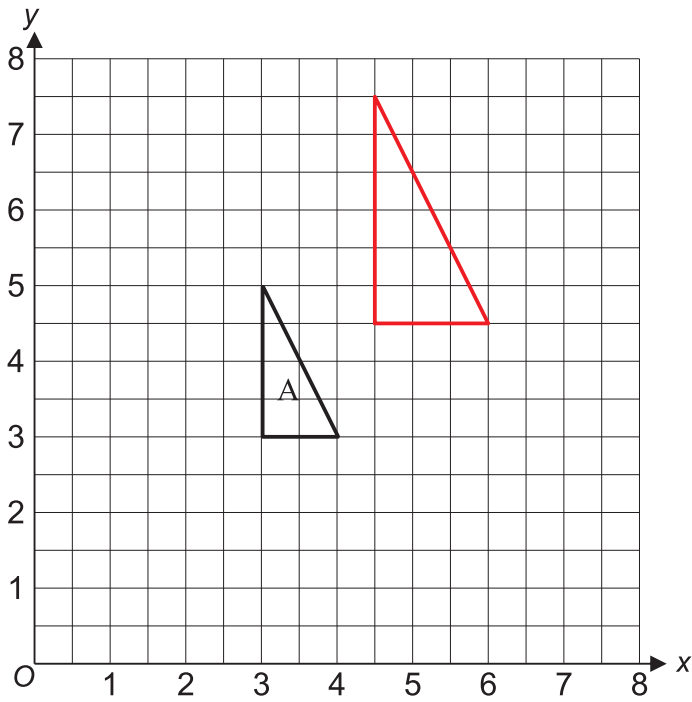
- 9) Use ruler and compasses to draw a line which is perpendicular to line AB at point C . 3



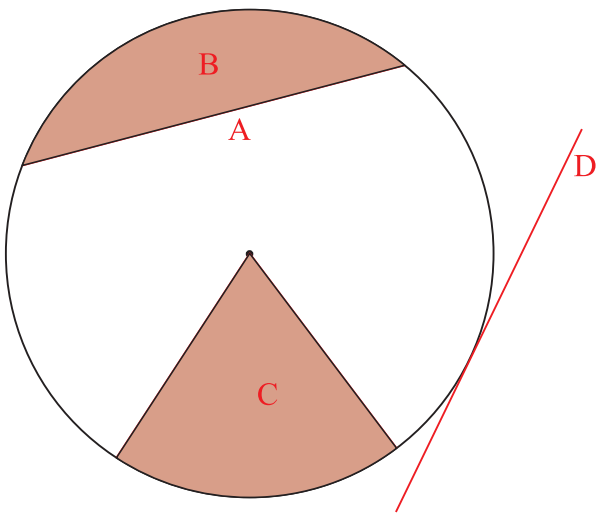
- 10) Use ruler and compasses to draw a triangle ABC with AB of length 11 cm, AC of length 6 cm and BC of length 14 cm. The line AB has been drawn for you. 3



- 11) Enlarge triangle A by scale factor 1.5 centre O . 3



- 12) In the circle below:

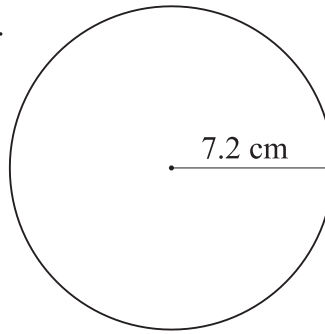


- a) Draw a chord and label it A. 1
b) Shade in a segment of the circle and label it B. 1
c) Shade in any sector of the circle and label it C. 1
d) Draw a tangent to the circle and label it D. 1

13) Find the area and the circumference of this circle.
Give your answers to 1 decimal place.

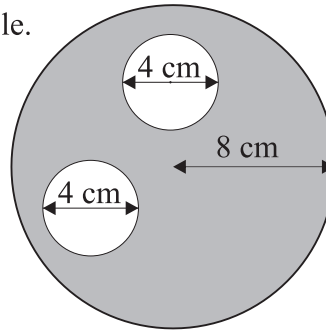
a) Area is 162.9 cm² 2

b) Circumference is 45.2 cm 2

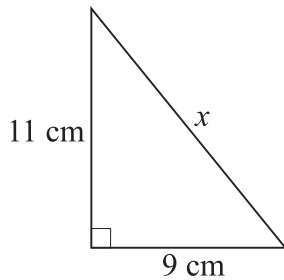


14) Find the area of the shaded region of the large circle.
Give your answer to 1 decimal place.

Area is 175.9 cm² 3

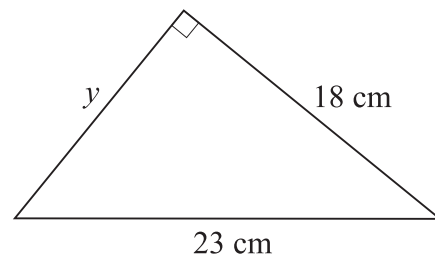


15) Find the length of side x .
Give your answer to 1 decimal place.



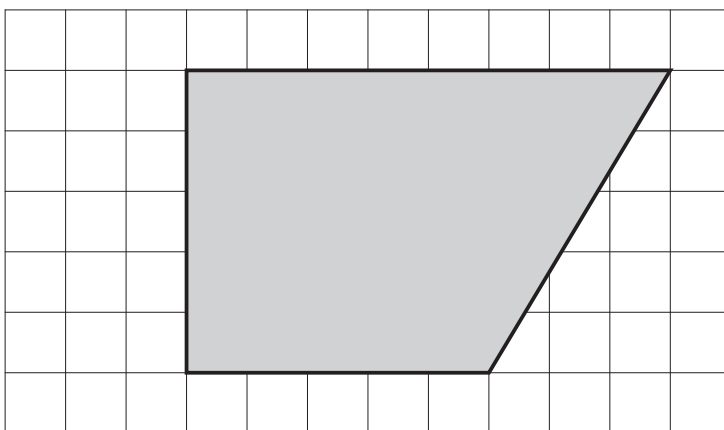
Length of side x is 14.2 cm 2

16) Find the length of side y .
Give your answer to 1 decimal place.



Length of side y is 14.3 cm 2

17) On the cm grid is a shaded tile.



Calculate the perimeter of the tile, giving your answer to 1 decimal place.

Perimeter is 23.8 cm 3