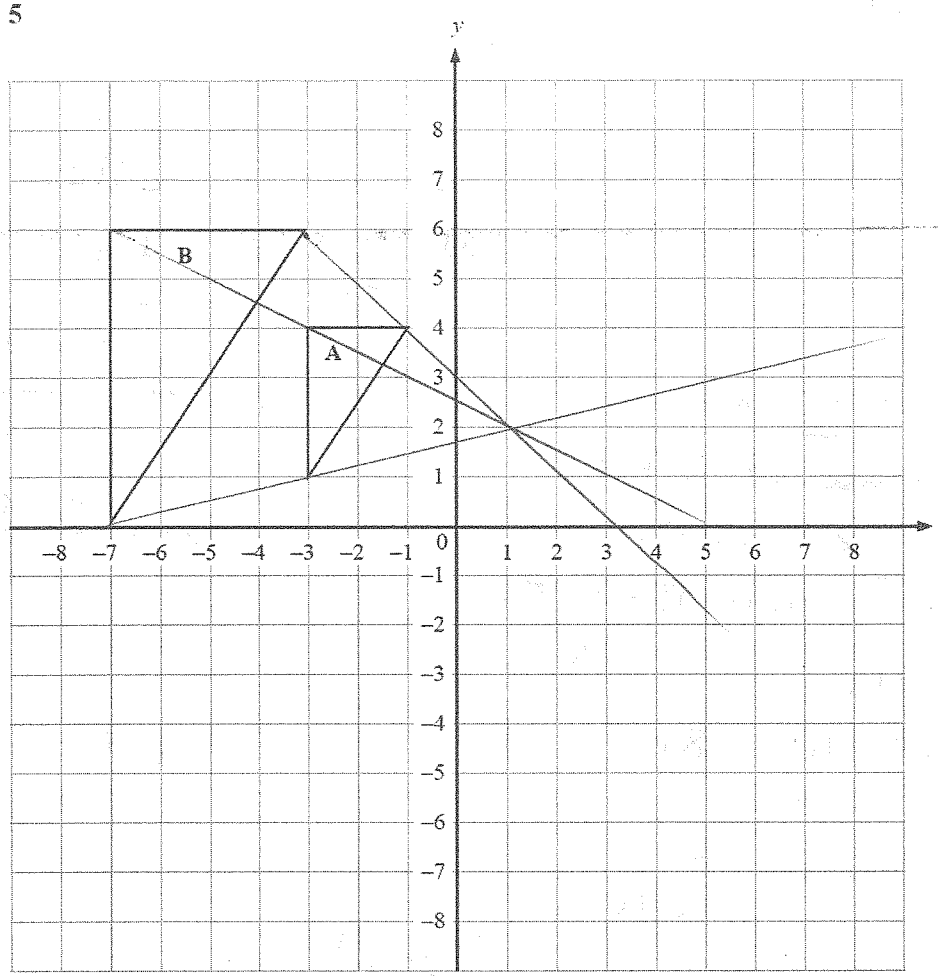
M8 =15 days to go!

5



Draw straight lines back to where it grows from.

(a) Describe fully the single transformation which will take triangle **B** to triangle A.

from B to A

Enlargement Scale Factor ½ Centre of Enlargement (1,2)

1 mark 1 mark 1 mark

Answer _____ [3]

Evaluate

$81^{-3/4}$

$81^{-3/4} = \frac{1}{81^{3/4}} = \frac{1}{27}$

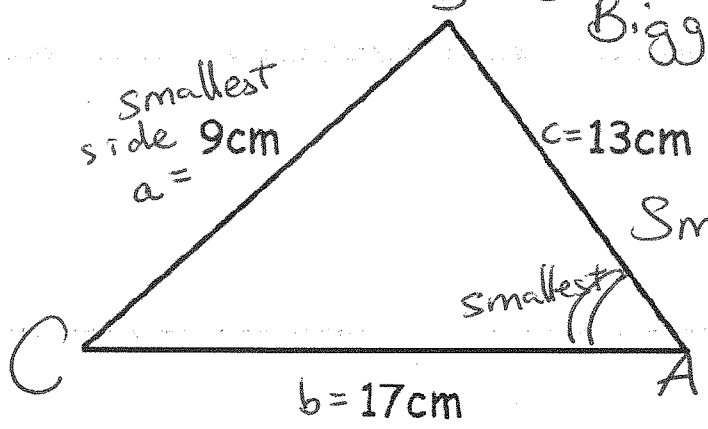
$81^{3/4} = (81^{1/4})^3 = 3^3 = 27$

$\frac{1}{27}$

(2)

12.

Remember The Big Hint!
Biggest Angle opposite the Biggest Side



Smallest Angle is opposite the Smallest side

Calculate the smallest angle in the triangle.

Label and use Cosine Rule

$a^2 = b^2 + c^2 - 2bc\cos A$

$9^2 = 17^2 + 13^2 - 2\times17\times13\times\cos A$

$81 = 289 + 169 - 442\cos A$

$442\cos A = 289 + 169 - 81$

$442\cos A = 377$

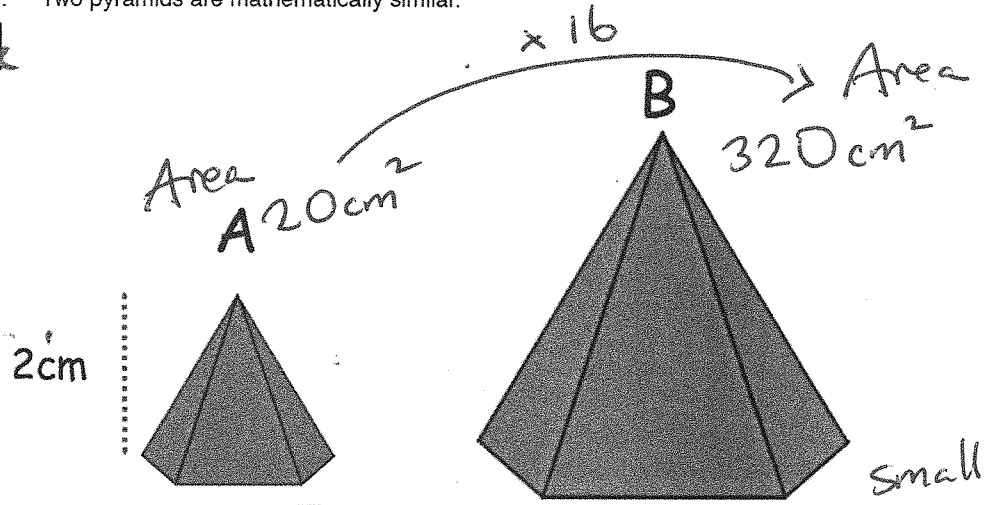
$\cos A = \frac{377}{442}$

$A = 31.5$

31.5 °

(3)

20. Two pyramids are mathematically similar.



Pyramid A has a surface area of 20cm²
Pyramid B has a surface area of 320cm²
The height of pyramid A is 2cm

small → big

$20\,cm^2 \xrightarrow[\text{Area}]{\times 4^2} 320\,cm^2$

(a) Work out the height of pyramid B.

Area $= \times k^2 = \times 16 = \times 4^2$

Lines $= \times k = \times 4$

$2\,cm \xrightarrow[\text{Lines}]{\times 4} 8\,cm$

8 cm

(3)