

21st June

Higher 5-a-day



Corbettmaths

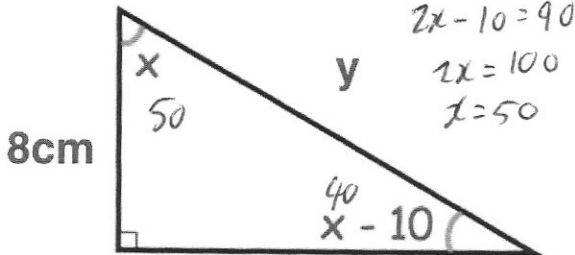
Arrange in descending order

738000 9.4×10^3 20×5^8
 9400 7812500

$$20 \times 5^8$$

$$738000$$

$$9.4 \times 10^3$$



$$2x - 10 = 90$$

$$2x = 100$$

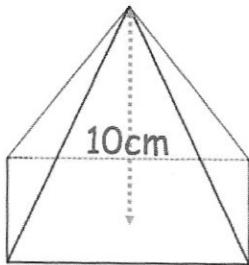
$$x = 50$$

Find y

$$C^A H$$

$$y = \frac{8}{\cos 50}$$

$$y = 12.446 \text{ cm}$$



$$V = \frac{1}{3} A h$$

$$\frac{1}{3} \times x^2 \times 10 = 270$$

Shown is a square-based pyramid with volume 270 cm^3

Find the length of the side marked x.

$$\frac{1}{3} x^2 = 27$$

$$x^2 = 81$$

$$x = 9$$

$$\sqrt{y} = 5\sqrt{6}$$

Find y

$$\sqrt{25} \times \sqrt{6}$$

$$\sqrt{150}$$

$$y = 150$$

There are 9 sweets in a bag. Five sweets are purple, three sweets are white and one sweet is pink. Three sweets are selected at random without replacement.

Calculate the probability that the sweets are not all the same colour.

Same

$$\frac{5}{9} \times \frac{4}{8} \times \frac{3}{7} = \frac{60}{504}$$

$$\frac{3}{9} \times \frac{2}{8} \times \frac{1}{7} = \frac{6}{504}$$

$$1 - \frac{66}{504} = \frac{73}{84}$$