July 8th	5-a-day	Numeracy

Name this type of triangle

isosceles

Write these numbers in order of size. Start with the largest

4301 4290 4310

4310 4301 4290

Work out the sum of 4301, 4290 and 4310

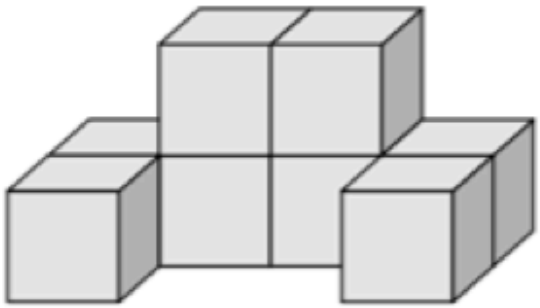
4301
4290
+ 4310
12901

Here is a sequence of numbers

9 13 17 21 25 29 ...

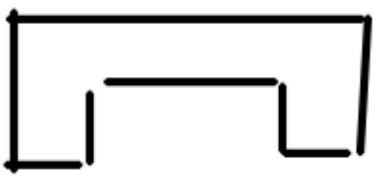
What is the rule for continuing the sequence?

+4 add 4 each time



Shown is the view from the front of a shape.

Draw the plan view (view from above)

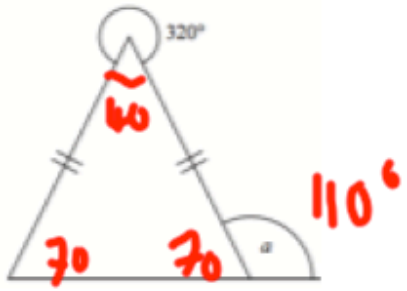


Draw the side elevation (view from the side)

July 8	5-a-day	Foundation

Work out the cube root of 125

5



Find a

110°

	French	Art
Female	8	3
Male	7	3

A student is chosen at random.

What is the probability they study French?

$\frac{15}{21} = \frac{5}{7}$

What is the size of each interior angle of a regular pentagon?

108°

What is the size of each exterior angle of a regular pentagon?

72°

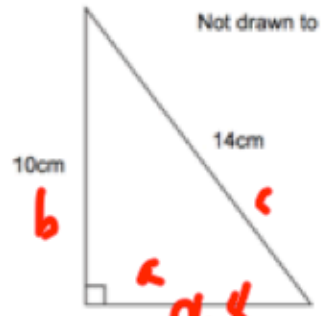
What is the size of each interior angle of a regular hexagon?

120°

What is the size of each exterior angle of a regular hexagon?

60°

July 8 | **5-a-day** | **Higher**



$a^2 + 10^2 = 14^2$

$a^2 + 100 = 196$

$a^2 = 96$

$a = \sqrt{96} = 9.8$

Find the area of this triangle.

$\frac{1}{2}(9.8) \times 10$

$= \frac{1}{2}(98)$

$= 49 cm^2$

length, L, cm	Frequency	midpoint	fx
$0 < L \leq 10$	21	5	105
$10 < L \leq 20$	11	15	165
$20 < L \leq 30$	31	25	775
$30 < L \leq 40$	12	35	420
$40 < L \leq 50$	25	45	1125

What is the modal interval?

$20 < L \leq 30$

Calculate an estimate of the mean.

$\frac{2590}{100} = 25.9$

M is directly proportional to the square of A.

When M = 200, A = 2.

Find M when A = 4.

$M \propto A^2$

$M = kA^2$

$200 = k \times 4$

$k = 50$

$M = 50A^2$

$M = 50 \times 4^2$

$= 800$

Simplify

$$\frac{a^{1/5} \times a^{2/3}}{a^{3/5}}$$

$a^{1/5} \times a^{2/3} = a^{13/15}$

$a^{13/15} \div a^{3/5} = a^{4/15}$

$\frac{1}{5} + \frac{2}{3}$

$\frac{3}{15} + \frac{10}{15} = \frac{13}{15}$

$\frac{13}{15} - \frac{3}{5} = \frac{13}{15} - \frac{9}{15} = \frac{4}{15}$