

1 Algebra - Sequences

Here are the first five terms of a number sequence.

3 8 13 18 23

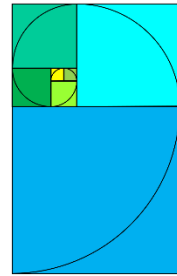
28 33

- Write down the next **two** terms of the sequence.
- Explain how you found your answer. **+5**
- Find an expression, in terms of n , for the n th term of the sequence.
- Write down the 21st term of the number sequence. **$5n - 2$**



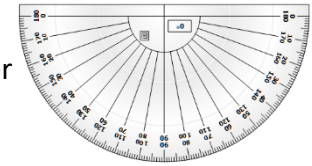
$$5 \times 21 - 2 = 103$$

- In the space below, draw Pattern number 4.

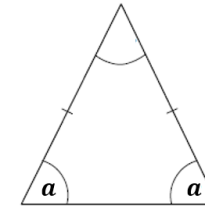
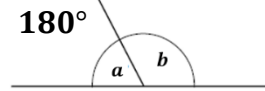
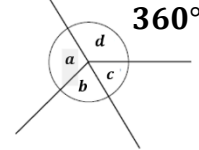
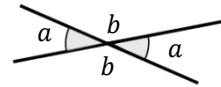


2 Shape - Angles

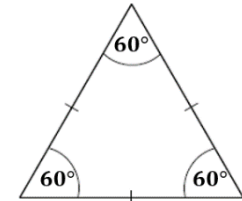
Use a protractor



Opposite: equal



isosceles



equilateral

3 Algebra – Rules of Algebra

Simplify

- $c + c + c + c = 4c$
- $3g + 5g = 8g$
- $2a + 7b - 3b + a = -a + 8b$

Substitution into formula:

$$v = u + 10t$$

Work out the value of v when

$$u = 10 \text{ and } t = 7 \quad v = 10 + 10 \times 7 = 80$$

Rules:

$$a + b = b + a$$

$$a \times b = b \times a = ab$$

$$a \div b = \frac{a}{b}$$

$$a \times a = a^2$$

4 Number - Percentages

Calculating percentages of amounts:

$$16\% = 10\% + 6\% \\ = 10\% + 6 \times 1\%$$

eg. 16% of £20

$$10\% = \text{£}2$$

$$1\% = \text{£}0.20, \text{ so } 6\% = \text{£}1.20$$

$$16\% \text{ of } \text{£}20 = \text{£}3.20$$

1%	$\frac{1}{100}$	0.01
5%	$\frac{1}{20}$	0.05
10%	$\frac{1}{10}$	0.1
25%	$\frac{1}{4}$	0.25
$33\frac{1}{3}\%$	$\frac{1}{3}$	0.3
50%	$\frac{1}{2}$	0.5

1	2	3	4
196	477 485	151 – 153	81 - 84
197	479 812	156	
198	480	780 781	