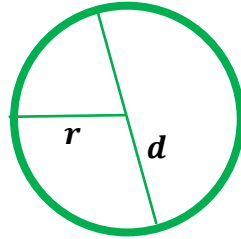


1 Shape – Circles

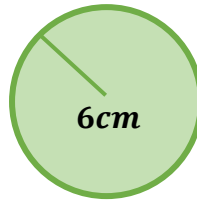
$$A = \pi r^2$$

$$C = \pi d$$

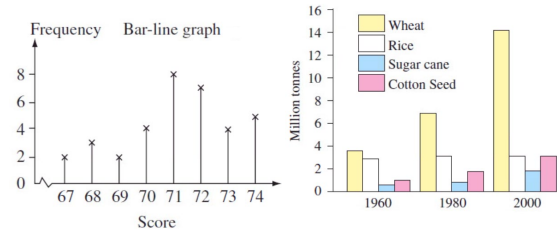
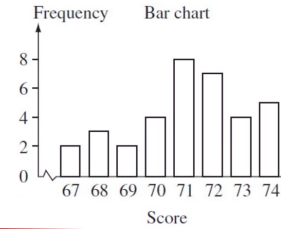


$$A = \pi \times 6^2 = 36\pi = 113.1\text{cm}^2$$

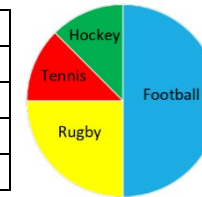
$$C = \pi \times d = \pi \times 12 = 12\pi = 37.7\text{cm}$$



2 Data – Charts



Sport	Frequency
Football	60
Rugby	30
Tennis	15
Hockey	15



$$\frac{360}{60+30+15+15} = 3^\circ \text{ per person}$$

e.g Rugby = $30 \times 3^\circ = 90^\circ$

3 Algebra – Brackets and Equations

Expand:

Multiply by the factor outside the bracket

$$2(3x + 5) = 6x + 10$$

$$a(a + 5) = a^2 + 5a$$

$$-2(5x - 4) = -10x + 8$$

Solve:

Balance using inverse operations

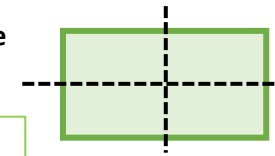
$$3x - 8 = 16 \quad +8$$

$$3x = 24 \quad \div 3$$

$$x = 6$$

4 Shape – Transformations

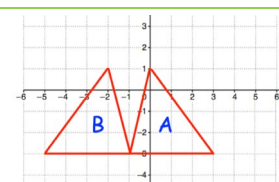
Two lines of **reflective symmetry**



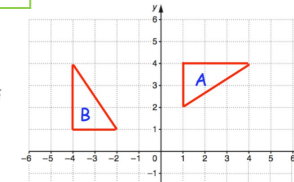
Rotational symmetry of order 2

If you spin it through 360° it matches up twice

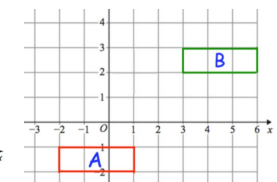
Transformation of A to B:



Reflection in $x = -1$



Rotation 90° anticlockwise about $(0, 0)$



Translation $\begin{pmatrix} 5 \\ 4 \end{pmatrix}$

1	2	3	4
534	401	160 – 161	637 – 640
539	425	176 – 179	648 – 649
	427 – 428		827 – 828

Keywords:

Expand

Inverse

Translate