



### Balancing Method

Take a small bag away from each side.  
 Take a big bag away from each side.

We can see that a big bag is equal to  $4 + 4 = 8$  kg

Example: Complete the rest of the shape given the line of symmetry.

The order of symmetry is the number of times a shape looks the same in one complete turn.

- Has order 2 (blue diamond)
- Has order 3 (blue triangle)
- Has order 4 (blue square)

### Coordinates

Proper Names

Write down the points that have the same x coordinate: (2,1) (2,2) (2,4)  
 Write down the points that have the same y coordinate: (1,3) (4,3) (2,2) (3,2)

### Pie Charts

50 people were asked what was their favourite holiday

How many chose America  
 $\frac{4}{10}$  of 50  
 $= 50 \div 10 \times 4 = 20$

### Solving Equations (Balancing Method)

### S1 Mathematics Level D Course

When working out time difference we will use the Counting Method. This method will always work.

Example: Find the time difference between 08 46 hrs and 11 52 hrs

08 46	nearest hour	09 00	Hrs	Mins
09 00	hours	11 00	2	14
11 00	What's left	11 52	+	52
			2	66

60 mins = 1hr  
 3 hrs 6 mins

### Type of Angles

- Acute: less than  $90^\circ$
- Right - Angle: exactly  $90^\circ$
- Obtuse: Between  $90^\circ - 180^\circ$
- Straight Line Angle: exactly  $180^\circ$
- reflex: over  $180^\circ$  less than  $360^\circ$

### Fractions, Decimals and Percentages

Just different ways of saying the same thing.

Angles round a point Add up to  $360^\circ$

Two angles making a straight line add to  $180^\circ$

angles opposite each other at a cross are equal.

3 angles in a triangle ALWAYS add up to  $180^\circ$ .

### Directions

Calculate the area of this shape

$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2} \times 6 \times 12$$

$$A = 36\text{cm}^2$$

Calculate the area of this shape

$$A = L \times b$$

$$A = 10 \times 8$$

$$A = 80\text{cm}^2$$

### Length Perimeter Area

Problem: Below is a draw of the school building. Calculate the perimeter.

Perimeter =  $12 + 8 + 3 + 4 + 9 + 4 = 40$  m