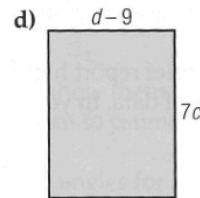
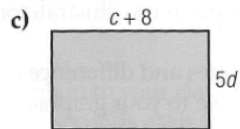
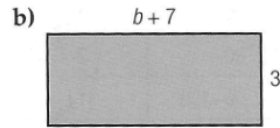
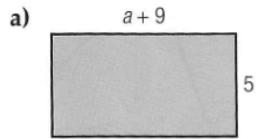


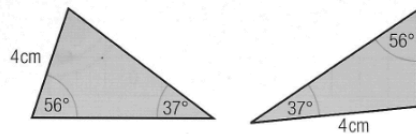
# Year 8 Review 1A

- A stadium has 64 593 seats.
  - Write this number in words.
  - Round the number:
    - to the nearest thousand
    - to the nearest hundred.
- A car transporter can carry 13 cars. How many transporters are needed for 340 cars?
- For each of the following rectangles:
  - write an expression for the area, using brackets
  - expand your expressions in part (i) by multiplying out the brackets
  - derive a formula for the area in the form  $A = \dots$

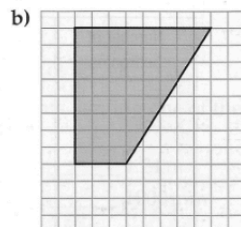
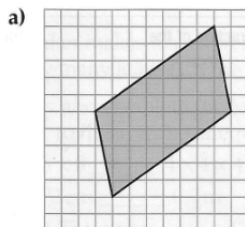


- Expand the brackets in these expressions and simplify your answer where possible.
  - $4(f-2) + 5(f-5)$
  - $7(-2g-3) + 8(3g-2)$
  - $-6(h+3) - 8(h-7)$

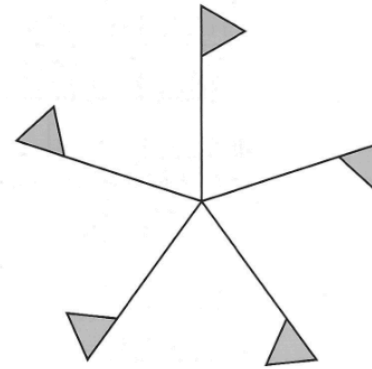
- Explain whether or not these two triangles are congruent. Give reasons for your answer.



- Write down the name of each of these quadrilaterals.



- Look at this shape.



- Write down the number of lines of reflection symmetry.
  - Write down the order of rotational symmetry.
- A plane is flying at 11 887 m. What is the height in feet?
    - Mount Everest is 8870 m high. What is the height in feet?
    - A marathon run is about 42 km. What is the distance in miles?
    - The Sun is 150 million kilometres away. What is the distance in miles?
  - In a survey, 30 students are asked how many bedrooms their house has. The results are shown in this table.

*1 metre is about 1.1 yards  
1 km =  $\frac{5}{8}$  mile  
1 yard = 3 feet*

Number of bedrooms	1	2	3	4	5	6
Frequency	1	8	15	5	0	1

- The data is to be shown on a pie chart. Copy and complete the table below.

Number of bedrooms	Frequency	Fraction of the total	Angle
1	1	$\frac{1}{30}$	$\frac{1}{30} \times 360 =$
2	8		
3			
4			
5			
6			

- Construct a pie chart to show the data.
- Using a calculator, work out the answers to the following calculations.

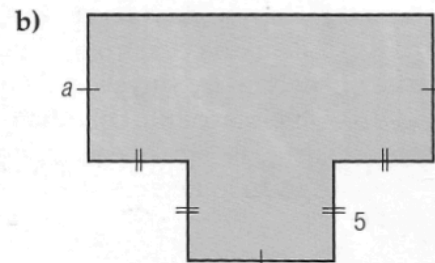
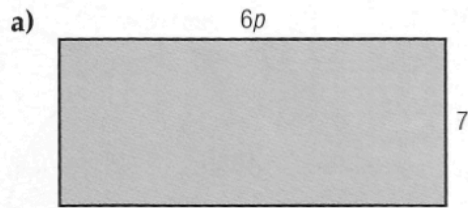
a)  $3 + \frac{45-10}{5}$

b)  $\frac{8^2}{18-2}$

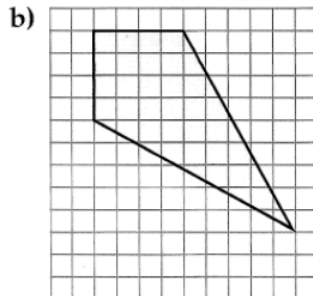
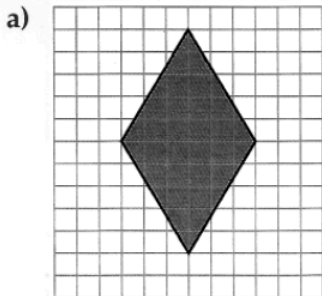
# Year 8 Review 1B

- A ship can carry 8500 tonnes of cargo.  
How many containers, each weighing 18 tonnes, can it carry safely?
- A baker makes loaves weighing 425 g.  
How many loaves can he make from 15 kg of dough?
- Copy and complete the following statements, writing one of the signs =, > or < to make each statement true.
  - $8 \times 8$  \_\_\_\_\_  $4 \times 4 \times 4$
  - $120 \text{ cm}$  \_\_\_\_\_  $1.21 \text{ m}$
  - $73 \text{ cm}$  \_\_\_\_\_  $0.7 \text{ m}$
  - $100 \text{ cm}$  \_\_\_\_\_  $1000 \text{ mm}$
  - $4.75 \text{ tonnes}$  \_\_\_\_\_  $47500 \text{ kg}$

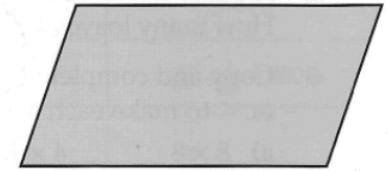
- For each of the following shapes:
  - write a simplified expression for the perimeter
  - derive a formula for the perimeter in the form  $P = \dots$



- Expand the brackets in these expressions and simplify your answer where possible.
  - $3(a + 2) - 2(b - 1)$
  - $3a(b + 2) + 5(2b + 5)$
  - $-5b(c - 8) - 2b(7 - 4c)$
- Write down the name of each of these quadrilaterals.

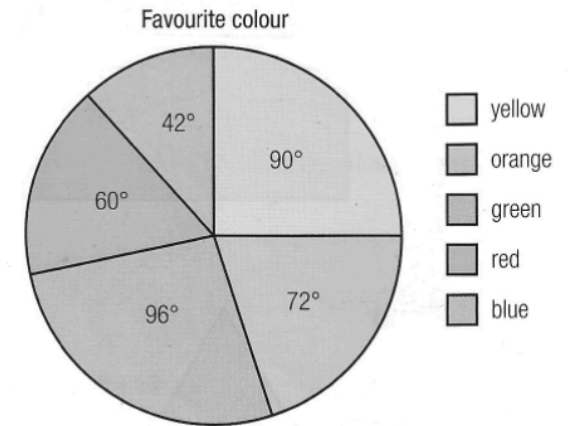


- Look at this shape.
  - Write down the number of lines of reflection symmetry.
  - Write down the order of rotational symmetry.



- A loaded ship has a mass of 155 000 tonnes. Convert this to kilograms.
  - How many containers each 8 m long would fit along the length of a ship 174 m long?
  - It costs about \$5200 to send a single container from China to Germany. How much would it cost to send 8500 containers?

- This pie chart represents the data collected from 60 people who were surveyed about their favourite colour.  
The size of each sector is given in degrees.



- How many degrees represent one person?
  - How many people said yellow was their favourite colour?
  - How many people said orange was their favourite colour?
  - How many more people preferred green than preferred blue?
- Copy each of these calculations and put in any brackets that are needed to make it correct.
    - $24 - 3 + 3 + 4 = 11$
    - $24 - 3 + 3 + 4 = 27$
    - $24 - 3 + 3 + 4 = 3$