

1 Calculate

$$2\frac{7}{9} + 1\frac{3}{4}$$

2 Factorise the following expression...

$$20 - 16m$$

3 Calculate the range of the following data set...

4, 1, -3, 7, 0, -5

4 Multiply out the following brackets and simplify...

$$4(2x - 6) + 19$$

5 Express $\frac{14}{15}$ as a decimal

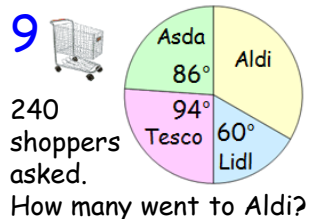
6 Calculate

$$314 \times 159$$

7 Solve the following equation...

$$8x + 15 = 4 - 3x$$

8 Calculate the area of this trapezium.



10 Increase 40 cm by 30%

11 A roller coaster took 3 minutes to cover 2.5 miles. What was its average speed?

12 Different colours of paint were used for a 10 litre mixture. 6.81 litres of blue paint and 2.059 litres of yellow paint were used with the rest of the paint being red. How much red paint was used?

13 A heavy weight boxer weighs 15 st 2 lb. How heavy is he in kilograms?

pound	453.59 g
stone	6.35 kg

14 The circumference of this pie is 62.8 cm. Calculate its diameter.

15 Calculate

$$(9 - 7)^2 \div \sqrt{16}$$

16 Which is more likely? Picking a club from a pack of playing cards or getting a score of more than 4 from rolling a dice.

17 Calculate the length of the missing side.

18 Write the equation of the straight line

19 Write

$$3 \cdot 14 \times 10^{-2}$$

in number form.

20 Calculate

$$8792 \div 28$$

21 Calculate the gradient of this escalator...

22 Buttons are manufactured that must have a diameter with a tolerance of (10 ± 1.2) mm. What are the minimum and maximum diameters that are acceptable?

23 Find the 'nth' term for the following sequence and hence find the 10th term;

7, 11, 15, ...

24 Robert is growing a sunflower. One week its height increased from 48 cm to 60 cm. Calculate the percentage increase in the sunflower's height.

25 Calculate the area of this shape...

26 The following signs are mathematically similar. Area = ?

Calculate the missing area...

27 Calculate the size of the missing angle.

28 Calculate the volume of this shape

29 A standard bottle of wine holds $\frac{3}{4}$ litre. How many 175 ml glasses of wine could be poured from a standard bottle?

30 Calculate the size of the missing angles...

31 Calculate the length of the missing side.