

Key points to remember.

Working with decimals.

- To add or subtract decimals, simply keep the decimal points underneath each other and add or subtract in the usual way.
- To multiply decimals, first multiply with no decimal point. Then put in the decimal point; the number of decimal places in the answer is the total number of decimal places in the multiplied numbers (the question).
- To divide decimals, simply keep the decimal point in the same place and divide as usual.

Working with fractions.

- A fraction like $\frac{3}{4}$ means 3 parts out of a total of 4 equal parts.
- The top number of a fraction is called the numerator and the bottom number the denominator.
- To form equivalent fractions we multiply or divide the numerator and denominator by the same number.
- To compare fractions we find equivalent fractions that all have the same denominator.
- An improper fraction has a numerator which is larger than the denominator e.g.
- A mixed fraction has a whole part and a fraction part e.g. $2\frac{1}{2}$
- To add and subtract fractions we find equivalent fractions so that each part of the question has the same denominators. Then just add or subtract the numerators – the denominator stays the same.

- To multiplying fractions we just multiply the numerators and then multiply the denominators.
- To divide fractions we must swap the numerator and denominator over of the **second fraction** and then multiply as before.
- We use division and multiplication to find a fraction of an amount e.g $\frac{3}{4}$ of 24
 - a) divide by the denominator $24 \div 4 = 6$ then
 - b) multiply by the numerator $6 \times 3 = 18$
 so $\frac{3}{4}$ of 24 = 18

Working with percentages.

- We use the symbol % to represent percent.
- Percent means out of 100, so x% means $\frac{x}{100}$
 We can use this to convert between fractions, percentages and decimals.
- To convert from a fraction to a percentage we multiply by 100
- To calculate x% of a number multiply by $\frac{x}{100}$
- To increase or decrease by a given percentage; calculate the percentage then add or subtract it from the original amount.
- To find a percentage increase or decrease we write the change in value as a fraction of the original amount.

$$\frac{\text{Change in amount}}{\text{Original amount}} \times 100$$
- The world of money
 You should be able to apply the percentage ideas to situations involving money.

Remember your money units pounds or pence not both and pounds can be whole numbers or with 2 decimal places.