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**FUNCTIONAL SKILLS**

Maths Level 1



**Area: Numbers and the number system**

Criterion: Read, write, order and compare percentages in whole numbers and calculate percentages of quantities, including simple percentage increases and decreases by 5% and multiples thereof

**Percent**

It is important to understand that ‘per cent’ means ‘out of 100’.

The % symbol is a shortened way of saying ‘percent’.

30% means 30 percent. This is the same as 30 out of 100.

You can also write any percentage as a fraction, for example:

30% =

100% represents the whole amount.

You may find some questions easier to calculate by converting between fractions, decimals and percentages.

Just remember to convert your answer back to a percentage for your final answer, if the question asks you to do this.

For example, 40 out of 200 = = = 20%

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| **Fractions** | **Decimals** | **Percentages** |
|  | 0.4 | 40% |
|  | 0.25 | 25% |
|  | 0.6 | 60% |

**Percent**

To calculate percentage, you can use the following:

* divide by 2 to calculate 50%
* divide by 10 to calculate 10%
* divide by 20 to find 5%

Alternatively, divide by 100 to calculate 1% and then multiply by the percentage you require.

**Question 1**

Calculate 5% of 150

(Show your working out.)

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**Question 2**

Calculate 10% of 260

(Show your working out.)

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**Question 3**

Calculate 50% of 380

(Show your working out.)

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**Question 4**

Calculate 44% of 300

(Show your working out.)

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**Question 5**

Order the following from largest to smallest.

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| --- | --- | --- | --- |
| 60% |  | 0.05 | 0.7 |

(Show your working out.)

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**Exam practice 1**

Write 35% as a fraction.

(Show your working out.)

(1 mark)

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**Exam practice 2**

Ben teaches a gym class that has 30 members. 30% of the class are men.

How many members of the class are men?

(Show your working and write your answer in the box below.)

(1 mark)

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**Exam practice 3**

There are 125 cakes in a shop at the start of the day. By the end of the day, 80% of the cakes have been sold.

How many cakes did the shop sell during the day?

(Show your working out.)

(X marks)

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**Calculating percentage increase and decrease**

To calculate a percentage increase or decrease,   
you must first find the ‘percentage of’, then either add or subtract accordingly.

For example:

Alex is baking a cake and uses 200g flour. They need to use 10% more flour when baking for 3 extra people. How much flour do they need to use.

10% of 200 = 20g

The question states ‘10% more’, which tells us this is an increase.

Therefore, the 20g should be added to the original value of 200g.

200g + 20g = 220g

**Question 1**

Cyclists compete in a 25km race. Dominic finished the race in 40 minutes. Michael’s time was 5% quicker than Dominic’s. How long did Michael take to complete the race?

(Show your working out.)

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**Question 2**

Julia is buying a new carpet. She measures out 12m. The shop owner adds an extra 10% at no extra cost. What is the length of the new carpet?

(Show your working out.)

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**Question 3**

Last year, the average attendance at a football match was 960 people. There has been a 5% increase in the average attendance this year.

What was the average attendance this year?

(Show your working out.)

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**Exam practice 1**

There is a new shopping centre in Highfield Town.

Two shops are offering discounts.

**Pop Shop**

**30% OFF**

**Minimum spend: £70**

**Townsman**

**25% OFF**

**Minimum spend: £80**

If you spent the minimum amount, would you make a bigger saving at Pop Shop or Townsman?

(Show your working out and write your answer in the box below.)

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**Exam practice 2**

You work as a finance assistant at Highfield Nursery.

The weekly wage bill for the nursery is £675. They need to reduce this by 20%.

The manager thinks that if the wage bill is reduced by £95, this will be enough.

Is the manager correct?

(Show your working out and write your answer in the box below.)

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**Answers**

**Calculating percentage**

**Question 1**

7.5

**Question 2**

26

**Question 3**

190

**Question 4**

132

**Question 5**

0.7, 60%, , 0.05

**Exam practice part 1**

**Exam practice 1**:

35/100 or 7/20

**Exam practice 2**

9 are men.

**Exam practice 3**

100 cakes were sold.

**Calculating percentage increase and decrease**

**Question 1**

38 minutes

**Question 2**

13.2m

**Question 3**

1,008 people

**Exam practice**

**Exam practice 1**

The saving at Pop Shop is £21

The saving at Townsman is £20

You would save more money at Pop Shop.

**Exam practice 2**

No because 20% of £675 is £135

**Your functional skills exam**

Your functional skills exams will consist of 2 papers.   
These papers will take place over the following time periods:

* Non-calculator paper – 40 minutes
* Calculator – 1 hour 50 minutes

Further information on the format that your test will take can be obtained from your training provider.

**Hints and tips**

* Find out what format your exam will be in. It may be paper-based   
  or on-screen.
* Plan what you are going to revise in advance. Don’t leave it until the last minute.
* Do as many past papers as you can so you are prepared for the day. If possible, try to complete the past papers following the same format as the actual exam.
* Find a quiet place to study and revise. It helps to sit at a table or a desk, don’t revise in bed.
* Don’t stay up all night revising the night before your exam. It’s important to have a good rest so you feel refreshed and ready to go.
* Read the question 3 times. The first time to ensure you understand what is being asked, the second time to get an understanding of what you need to do, and a third time to figure out exactly what maths techniques you should be applying.
* If you are struggling with a question, skip it and come back to it later. Try not to sit getting worked up about a difficult question, it will only waste exam time. Move on and come back to it after you have answered the other questions.
* Take note of the number of marks available. This will give you an indication of how much working out you must show. For example, 1 mark will need an answer only and more marks will need you to show your working out.
* When you’ve finished the exam, go back and check your answers. If you still have time remaining, use it to check your answers and when you have checked your answers check them again.