

Functional Skills

Top tips for maths tests



Name _____ Date _____

There are lots of things that you can do to improve your score on a Functional Skills Maths test that don't involve improving your maths skills.

Here are just some examples:

Check how many total marks there are for each question – the more marks that can be achieved, the more complicated the maths you will need to perform and the more you will need to show that you know what you are doing – and make sure that you do what the questions asks.

Show how you got the answer - it is important that you show your working out, and that you work neatly.

This applies particularly to online assessments where it might be less easy to show how you reached the answer, but type your working out onto the screen in the same way as you would write it out on paper.

Show how you could check your answer- Don't just say that you checked it on a calculator; this is not enough. Think about how you can find a mistake if your answer is not right.

Use units of measure – if there are units of measure (grams, kg, mm, cm, m, £, etc) or units squared (mm^2) or cubed (mm^3), then include them in your answer when this is appropriate.

Rounding up and down – use your common sense when rounding up and down. If there are things that only come as whole units (like people), then round to the nearest whole number, if it is money, then round to the nearest 2 decimal places for pence, and if it is measurements, round to the nearest full unit where this is possible.

On the following pages is a worked example question, taken from an IQ sample assessment. Here you can see what you need to include to gain the four marks available for this question.

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Look at this question from a sample assessment:

The distance you have to travel is 41 miles each way. Parking costs £15 for the day.

Use this formula to calculate total fuel cost.

$$T = \frac{4.5fd}{c}$$

Where:

T is the total cost of fuel in £

f is the cost of one litre of fuel in £

d is the total distance in miles

c is the fuel consumption of the car in miles per gallon

Fuel costs £1.36 per litre. Your car's fuel consumption is 30 miles per gallon.

What is the total cost of attending the meeting if you use your car? Include the cost of parking and fuel for the return trip to Panchester.

Show all of your working. Use a suitable method to check your calculations.

(4 marks)

There are 4 marks for this question.

Can you break this question down into 4 different things that will give you 4 separate marks?

Firstly, you will gain 1 mark for substituting the values into the formula.

$$\text{Total cost} = \frac{(4.5 \times 1.36 \times 82)}{30} + 15$$

In the space for your answer, you need to include all of the above to get the marks for substituting the values into the formula.

The **82** in the formula is double the single journey because you are making a return trip.

You will get another mark for doing the calculations correctly:

$$4.5 \times 1.36 \times 82 = 501.84/30 = \text{£}16.728 \text{ PLUS } \text{£}15 \text{ for parking} = 31.728$$

These come from the information given and this is result of the calculation.

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The question says, 'Show your working' so you will get marks for showing each stage of the calculation, this also makes it easier for you to find any mistakes when you check the calculation.

$$4.5 \times 1.36 \times 82 = 501.84/30 = \text{£}16.728 \text{ PLUS } \text{£}15 \text{ for parking} = 31.728$$

This demonstrates that you know how to carry out the calculations required. If you had copied over the numbers incorrectly, you could still have gained the mark for understanding the problem and knowing the right calculations to use.

But, you may also gain marks for showing the method you used, even if the final answer is incorrect – sometimes, knowing how to do the calculation is just as important as getting the right answer.

And for writing out in full, showing the units, in this case, the £ sign.

The total cost for the trip by car, including the parking, using the formula above is £31.73 rounded to the nearest penny or £32 to the nearest £.

This, however, will only get you 3 of the 4 marks – there is one mark available for being able to check both your answer and your calculation.

The simplest way to check a problem like this is by estimation:

We can say that the formula is, more or less, as follows:

$$15 + \frac{4.5 \times 1.5 \times 80}{30} = \frac{6.75 \times 80}{30} = \frac{540}{30} = 18 + 15 = \text{£}33$$

This gives you a rough approximation, based on the actual numbers, of what the correct response is.

This is the way to gain the 4 marks available for this question.

Reminder – the four marks are for:

1. Using the formula appropriately
2. Showing your working
3. Finding the correct answer
4. Showing how you checked your calculations