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**FUNCTIONAL SKILLS**

Maths Level 1



**Area: Using Numbers and the number system**

Criterion 4: Use multiplication facts and make connections with division facts

**Recall multiplication facts up to 12 x 12**

Multiplication facts are sometimes known as times tables.

They are the results of multiplying 2 numbers together.

At level 1, you need to remember the multiplication tables up to 12 x 12

It’s important to know that multiplication facts using the same number are interchangeable.

For example:

**2 x 3 = 6**

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This array shows 2 lots of 3, or 2 x 3

It shows 2 across and 3 down.

If we count all the squares, you will see there are 6

Alternatively, we can show 2 x 3 using objects.

2 groups of 3 squares gives us a product of 6

Likewise, 3 groups of 2 squares also gives a product of 6

**Top tips for learning multiplication facts:**

* practise regularly
* remember that multiplication facts using the same numbers are interchangeable

*Remember that any number multiplied by 0 will always give an answer of 0*

**Question 1**

Complete the multiplication facts.

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| 1 x 1 =  2 x 1 =  3 x 1 =  4 x 1 =  5 x 1 =  6 x 1 =  7 x 1 =  8 x 1 =  9 x 1 =  10 x 1 =  11 x 1 =  12 x 1 = | 1 x 2 =  2 x 2 =  3 x 2 =  4 x 2 =  5 x 2 =  6 x 2 =  7 x 2 =  8 x 2 =  9 x 2 =  10 x 2 =  11 x 2 =  12 x 2 = | 1 x 3 =  2 x 3 =  3 x 3 =  4 x 3 =  5 x 3 =  6 x 3 =  7 x 3 =  8 x 3 =  9 x 3 =  10 x 3 =  11 x 3 =  12 x 3 = |

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| --- | --- | --- |
| 1 x 4 =  2 x 4 =  3 x 4 =  4 x 4 =  5 x 4 =  6 x 4 =  7 x 4 =  8 x 4 =  9 x 4 =  10 x 4 =  11 x 4 =  12 x 4 = | 1 x 5 =  2 x 5 =  3 x 5 =  4 x 5 =  5 x 5 =  6 x 5 =  7 x 5 =  8 x 5 =  9 x 5 =  10 x 5 =  11 x 5 =  12 x 5 = | 1 x 6 =  2 x 6 =  3 x 6 =  4 x 6 =  5 x 6 =  6 x 6 =  7 x 6 =  8 x 6 =  9 x 6 =  10 x 6 =  11 x 6 =  12 x 6 = |

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| 1 x 7 =  2 x 7 =  3 x 7 =  4 x 7 =  5 x 7 =  6 x 7 =  7 x 7 =  8 x 7 =  9 x 7 =  10 x 7 =  11 x 7 =  12 x 7 = | 1 x 8 =  2 x 8 =  3 x 8 =  4 x 8 =  5 x 8 =  6 x 8 =  7 x 8 =  8 x 8 =  9 x 8 =  10 x 8 =  11 x 8 =  12 x 8 = | 1 x 9 =  2 x 9 =  3 x 9 =  4 x 9 =  5 x 9 =  6 x 9 =  7 x 9 =  8 x 9 =  9 x 9 =  10 x 9 =  11 x 9 =  12 x 9 = |

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| 1 x 10 =  2 x 10 =  3 x 10 =  4 x 10 =  5 x 10 =  6 x 10 =  7 x 10 =  8 x 10 =  9 x 10 =  10 x 10 =  11 x 10 =  12 x 10 = | 1 x 11 =  2 x 11 =  3 x 11 =  4 x 11 =  5 x 11 =  6 x 11 =  7 x 11 =  8 x 11 =  9 x 11 =  10 x 11 =  11 x 11 =  12 x 11 = | 1 x 12 =  2 x 12 =  3 x 12 =  4 x 12 =  5 x 12 =  6 x 12 =  7 x 12 =  8 x 12 =  9 x 12 =  10 x 12 =  11 x 12 =  12 x 12 = |

**Question 2**

Work out the answer to the following multiplication facts.

*Remember that multiplication facts are interchangeable when they use the same numbers.*

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| --- | --- |
| 6 x 8 = | 10 x \_ = 90 |
| 8 x 7 = | \_ x 6 = 48 |
| 9 x 10 = | \_ x 3 = 18 |
| 3 x 6 = | 7 x \_ = 56 |
| 7 x 9 = | \_ x 7 = 63 |

(Show your working out.)

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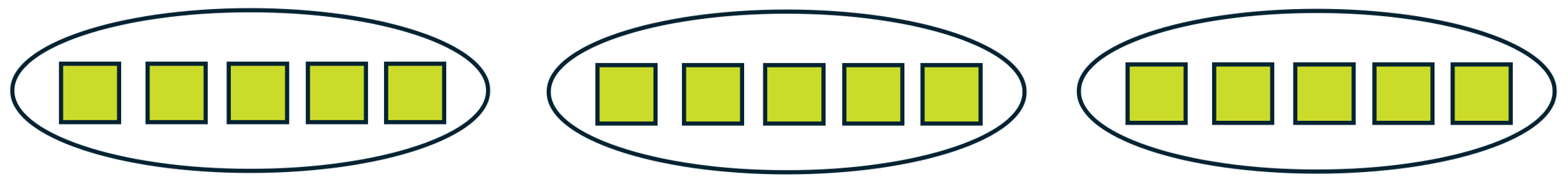
**Division**

Division is the inverse, or opposite, of multiplication.

Division is also known as sharing.

It uses the symbol **÷**

For example, 15 ÷ 3 means 15 shared by 3



Here, you can see we start with 15 squares.

They are shared equally into 3 groups.

There are 5 in each group.

15 ÷ 3 = 5

**Top tips for learning division facts**:

* remember that, if you multiply 2 numbers, you can use this information to divide
* practise writing down a multiplication fact and then writing its matching division fact

For example, the opposite of 5 x 6 = 30 is:

30 ÷ 6 = 5 or 30 ÷ 5 = 6

**Question 3**

Complete the following divisions:

1. 10 ÷ 5
2. 21 ÷ 3
3. 80 ÷ 10
4. 35 ÷ 7
5. 48 ÷ 12

(Show your working out.)

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**Make connections with multiplication and division facts**

We now know that division is the inverse, or opposite, of multiplication.

You can use known multiplication facts to solve division problems.

Each multiplication fact has 2 division facts.

Once you know your multiplication facts, you can solve division problems.

Here are some examples.

You know that 3 × 4 = 12

Therefore, you also know that 12 ÷ 4 = 3 and 12 ÷ 3 = 4

You know that 8 × 7 = 56

You can use this information to figure out that 56 ÷ 7 = 8 and 56 ÷ 8 = 7

**Top tips**

1. When faced with a division problem, think about what multiplication fact you can use to help you

For example, to solve 36 ÷ 6, think to yourself, "What number do I multiply by 6 to get 36?"

The answer is 6 because 6 × 6 = 36

1. Practise writing down a multiplication fact and then writing its matching division fact

For example:

5 × 6 = 30

30 ÷ 6 = 5 or 30 ÷ 5 = 6

1. Remember that, at level 1, the larger number is usually the total, and the other 2 numbers are the parts that make up that total when multiplied together

**Question 4**

Work out the answers to match the multiplication with their division facts.

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| --- | --- | --- |
| 5 x 8 |  | 72 ÷ 12 |
| 5 x 5 |  | 14 ÷ 2 |
| 12 x 10 |  | 40 ÷ 5 |
| 6 x 12 |  | 120 ÷ 12 |
| 2 x 7 |  | 25 ÷ 5 |

(Show your working out.)

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**Question 5**

Use 18 x 5 = 90 to work out 90 ÷ 5

(Show your working out.)

(1 mark)

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**Question 6**

Use 11 x 9 = 99 to work out 990 ÷ 11

(Show your working out.)

(1 mark)

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**Question 7**

Use 11 x 12 = 132 to work out 1320 ÷ 110

(Show your working out.)

(1 mark)

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**Question 8**

Use 30 × 5 = 150 to work out 1500 ÷ 30

(Show your working out.)

(1 mark)

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**Question 9**

Use 15 × 80 = 1200 to work out 120 ÷ 15

(Show your working out.)

(1 mark)

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**Question 10**

Use 55 × 20 = 1100 to work out 1100 ÷ 550

(Show your working out.)

(1 mark)

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**Question 11**

Use 4 × 25 = 100 to work out 1000 ÷ 40

(Show your working out.)

(1 mark)

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**Question 12**

Use 7 × 3 = 21 to work out 2100 ÷ 70

(Show your working out.)

(1 mark)

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**Question 13**

Use 9 × 15 = 135 to work out 1350 ÷ 90

(Show your working out.)

(1 mark)

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**Question 14**

Use 65 × 2 = 130 to work out 13000 ÷ 65

(Show your working out.)

(1 mark)

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**Answers**

**Multiplication**

**Question 1**

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| --- | --- | --- |
| 1 x 1 = 1  2 x 1 = 2  3 x 1 = 3  4 x 1 = 4  5 x 1 = 5  6 x 1 = 6  7 x 1 = 7  8 x 1 = 8  9 x 1 = 9  10 x 1 = 10  11 x 1 = 11  12 x 1 = 12 | 1 x 2 = 2  2 x 2 = 4  3 x 2 = 6  4 x 2 = 8  5 x 2 = 10  6 x 2 = 12  7 x 2 = 14  8 x 2 = 16  9 x 2 = 18  10 x 2 = 20  11 x 2 = 22  12 x 2 = 24 | 1 x 3 = 3  2 x 3 = 6  3 x 3 = 9  4 x 3 = 12  5 x 3 = 15  6 x 3 = 18  7 x 3 = 21  8 x 3 = 24  9 x 3 = 27  10 x 3 = 30  11 x 3 = 33  12 x 3 = 36 |

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| --- | --- | --- |
| 1 x 4 = 4  2 x 4 = 8  3 x 4 = 12  4 x 4 = 16  5 x 4 = 20  6 x 4 = 24  7 x 4 = 28  8 x 4 = 32  9 x 4 = 36  10 x 4 = 40  11 x 4 = 44  12 x 4 = 48 | 1 x 5 = 5  2 x 5 = 10  3 x 5 = 15  4 x 5 = 20  5 x 5 = 25  6 x 5 = 30  7 x 5 = 35  8 x 5 = 40  9 x 5 = 45  10 x 5 = 50  11 x 5 = 55  12 x 5 = 60 | 1 x 6 = 6  2 x 6 = 12  3 x 6 = 18  4 x 6 = 24  5 x 6 = 30  6 x 6 = 36  7 x 6 = 42  8 x 6 = 48  9 x 6 = 54  10 x 6 = 60  11 x 6 = 66  12 x 6 = 72 |

|  |  |  |
| --- | --- | --- |
| 1 x 7 = 7  2 x 7 = 14  3 x 7 = 21  4 x 7 = 28  5 x 7 = 35  6 x 7 = 42  7 x 7 = 49  8 x 7 = 56  9 x 7 = 63  10 x 7 = 70  11 x 7 = 77  12 x 7 = 84 | 1 x 8 = 8  2 x 8 = 16  3 x 8 = 24  4 x 8 = 32  5 x 8 = 40  6 x 8 = 48  7 x 8 = 56  8 x 8 = 64  9 x 8 = 72  10 x 8 = 80  11 x 8 = 88  12 x 8 = 96 | 1 x 9 = 9  2 x 9 = 18  3 x 9 = 27  4 x 9 = 36  5 x 9 = 45  6 x 9 = 54  7 x 9 = 63  8 x 9 = 72  9 x 9 = 81  10 x 9 = 90  11 x 9 = 99  12 x 9 = 108 |

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| --- | --- | --- |
| 1 x 10 = 10  2 x 10 = 20  3 x 10 = 30  4 x 10 = 40  5 x 10 = 50  6 x 10 = 60  7 x 10 = 70  8 x 10 = 80  9 x 10 = 90  10 x 10 = 100  11 x 10 = 110  12 x 10 = 120 | 1 x 11 = 11  2 x 11 = 22  3 x 11 = 33  4 x 11 = 44  5 x 11 = 55  6 x 11 = 66  7 x 11 = 77  8 x 11 = 88  9 x 11 = 99  10 x 11 = 110  11 x 11 = 121  12 x 11 = 132 | 1 x 12 = 12  2 x 12 = 24  3 x 12 = 36  4 x 12 = 48  5 x 12 = 60  6 x 12 = 72  7 x 12 = 84  8 x 12 = 96  9 x 12 = 108  10 x 12 = 120  11 x 12 = 132  12 x 12 = 144 |

*You can use the multiplication facts above to help you learn up to 12 x 12*

**Question 2**

Work out the answer to the following multiplication facts.

*Remember that multiplication facts are interchangeable when they use the same numbers.*

|  |  |
| --- | --- |
| 6 x 8 = 48 | 10 x 9 = 90 |
| 8 x 7 = 56 | 8 x 6 = 48 |
| 9 x 10 = 90 | 6 x 3 = 18 |
| 3 x 6 = 18 | 7 x 8 = 56 |
| 7 x 9 = 63 | 9 x 7 = 63 |

**Division**

**Question 3**

1. 10 ÷ 5 = 2
2. 21 ÷ 3 = 7
3. 80 ÷ 10 = 8
4. 35 ÷ 7 = 5
5. 48 ÷ 12 = 4

**Making connections with multiplication and division facts**

**Question 4**

|  |  |  |
| --- | --- | --- |
| 5 x 8 |  | 72 ÷ 12 |
| 5 x 5 |  | 14 ÷ 2 |
| 12 x 10 |  | 40 ÷ 5 |
| 6 x 12 |  | 120 ÷ 12 |
| 2 x 7 |  | 25 ÷ 5 |

**Question 5**

90 ÷ 5 = 18

**Question 6**

990 ÷ 11 = 90

**Question 7**

1,320 ÷ 110 = 12

**Question 8**

1500 ÷ 30 = 50

**Question 9**

120 ÷ 15 = 8

**Question 10**

1100 ÷ 550 = 2

**Question 11**

1000 ÷ 40 = 25

**Question 12**

2100 ÷ 70 = 30

**Question 13**

1350 ÷ 90 = 15

**Question 14**

13000 ÷ 65 = 200

**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.