



Key Instant Recall Facts

Year 5 - Autumn Term 1

I know one and two-decimal place number bonds for numbers between 1 and 10

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

$$0.6 + 0.4 = 1$$

$$0.4 + 0.6 = 1$$

$$1 - 0.4 = 0.6$$

$$1 - 0.6 = 0.4$$

$$0.75 + 0.25 = 1$$

$$0.25 + 0.75 = 1$$

$$1 - 0.25 = 0.75$$

$$1 - 0.75 = 0.25$$

$$3.7 + 6.3 = 10$$

$$6.3 + 3.7 = 10$$

$$10 - 3.7 = 6.3$$

$$10 - 6.3 = 3.7$$

$$4.8 + 5.2 = 10$$

$$5.2 + 4.8 = 10$$

$$10 - 5.2 = 4.8$$

$$10 - 4.8 = 5.2$$

Key vocabulary

What do I add to 0.8 to make 1?

What is 1 take away 0.6?

What is 1.3 less than 10?

How many more than 9.8 is 10?

What is the difference between 8.9 and 10?

This list includes some examples of facts that children should know. They should be able to answer questions including missing number questions.

e.g. $0.49 + _ = 1$ or $10 - _ = 7.2$

Top tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You do not need to practise them all at once; perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Practical resources

- Buy one get three free - If your child knows one fact (e.g. $0.7 + 0.3 = 1$), can they tell you the other three facts in the same fact family?
- Use number bonds to 10 - How can your number bonds to 10 help you work out number bonds to 100?



Key Instant Recall Facts

Year 5 - Autumn Term 2

I know the multiplication and division facts for all times tables up to 12×12

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

Search 'multiplication square' online to see all times tables, or request a multiplication square from your child's teacher.

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Key vocabulary

What is 8 multiplied by 6?

What is 7 times 4?

What is 81 divided by 9?

What is the product of 5 and 7?

Children should be able to answer these questions in any order, including missing number questions.

e.g. $6 \times _ = 72$ or $_ \div 7 = 4$

Top tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You do not need to practise them all at once; perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Practical resources

Use a multiplication square to practise multiplication facts together. Can you child tell you the linked division fact, and three facts linked to the multiplication fact to create the fact family?



Key Instant Recall Facts

Year 5 – Spring Term 1

I can find factor pairs of a number

By the end of this half term, children should know the following facts.
The aim is for them to recall these facts instantly.

Children should now know all multiplication and division facts up to 12×12 . When given a number in one of those times tables, they should be able to state a factor pair which multiply to make this number (product).

Below are some examples:

$$\begin{array}{ll} 24 = 4 \times 6 & 42 = 6 \times 7 \\ 24 = 8 \times 3 & 25 = 5 \times 5 \\ 56 = 7 \times 8 & 84 = 7 \times 12 \\ 54 = 9 \times 6 & 15 = 5 \times 3 \end{array}$$

Key vocabulary

Can you find a factor of 28?

Find 2 numbers whose product is 20.

I know that 6 is a factor of 72 because 6 multiplied by 12 is 72.

Top tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You do not need to practise them all at once; perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Practical resources

Think of the question – One player thinks of a times table question (e.g. 4×12) and states the answer (the product). The other player has to guess the original question.



Key Instant Recall Facts

Year 5 – Spring Term 2

I can identify prime numbers up to 50

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

A prime number is a number with no factors other than one and itself.

The following numbers are prime numbers:

2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43 and 47

A composite number is divisible by a number other than one and itself.

The following numbers are composite numbers:

4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 22, 24, 25, 26, 27, 28, 30, 32, 34, 35, 36, 38, 40, 42, 44, 45, 46, 48, 49 and 50

Children should be able to explain how they know that a number is composite. E.g. 39 is a composite because it is a multiple of 3 and 13.

Key vocabulary

prime number

composite number

factor

multiple

Top tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You do not need to practise them all at once; perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Practical resources

It is very important that your child uses mathematical vocabulary accurately. Choose a number between 2 and 50. How many correct statements can your child make about this number using the key vocabulary above? Make a set of cards for the numbers from 2 to 50. How quickly can your child sort these into prime and composite numbers? How many even prime numbers can they find? How many odd composite numbers can they find?

Please note that 1 is not a prime or composite number.



Key Instant Recall Facts

Year 5 – Summer Term 1

I can recall square numbers up to 12^2 and their square roots

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

$$1^2 = 1 \times 1 = 1$$

$$\sqrt{1} = 1$$

$$2^2 = 2 \times 2 = 4$$

$$\sqrt{4} = 2$$

$$3^2 = 3 \times 3 = 9$$

$$\sqrt{9} = 3$$

$$4^2 = 4 \times 4 = 16$$

$$\sqrt{16} = 4$$

$$5^2 = 5 \times 5 = 25$$

$$\sqrt{25} = 5$$

$$6^2 = 6 \times 6 = 36$$

$$\sqrt{36} = 6$$

$$7^2 = 7 \times 7 = 49$$

$$\sqrt{49} = 7$$

$$8^2 = 8 \times 8 = 64$$

$$\sqrt{64} = 8$$

$$9^2 = 9 \times 9 = 81$$

$$\sqrt{81} = 9$$

$$10^2 = 10 \times 10 = 100$$

$$\sqrt{100} = 10$$

$$11^2 = 11 \times 11 = 121$$

$$\sqrt{121} = 11$$

$$12^2 = 12 \times 12 = 144$$

$$\sqrt{144} = 12$$

Key vocabulary

What is 7 squared?

What is 7 multiplied by itself?

What is the square root of 144?

Is 30 a square number?

Top tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You do not need to practise them all at once; perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Practical resources

Cycling squares – At <http://nrich.maths.org/1151> there is a challenge involving square numbers. Can you complete the challenge and then create your own examples?



Key Instant Recall Facts

Year 5 – Summer Term 2

I can count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

Children should be able to count forwards and backwards, from any given number, in steps of:

10, 100, 1,000, 10,000 and 100,000

E.g. Count forward in steps of 10,000 from 21,300.

21,300, 31,300, 41,300, 51,300, etc.

Key vocabulary

multiples
powers of 10
ten, hundred,
thousand, ten
thousand, hundred
thousand, million

Top tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You do not need to practise them all at once; perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Practical resources

Give your child a number and see how far they can count in steps of the powers of 10 listed above. Can they count forwards ten steps, then count backwards?