

# Key Instant Recall Facts

Year 5 – Autumn

**I know the prime numbers up to 19.**

**I know the first ten square numbers.**

**I know the first five cube numbers.**

**Factors:** Children should now know all multiplication and division facts up to  $12 \times 12$ . When given a number in one of these times tables, they should be able to state a factor pair which multiply together to make this number. **Factors must be whole numbers.**

It is important to remember the factors in pairs.

Factors for 24:

1 and 24    2 and 12  
3 and 8    4 and 6

## Key Vocabulary

Can you find a **factor** of 28?

Find two numbers whose **product** is 20.

I know that 6 is a **factor of** 72 because  $6 \times 12 = 72$ .

**Prime number.**

**Composite number.**

**Square number.**

**Cube number.**

**Prime numbers:** The prime numbers to 19 are: 1, 3, 5, 7, 11, 13, 17 and 19.

All of these numbers only have 2 factors one and themselves. They have no other factors. All other numbers are called **composite** numbers.

**Square numbers:** The first 10 square numbers are: 1, 4, 9, 16, 25, 36, 49, 64, 81 and 100.

Square numbers are the result when the same number is multiplied by itself. For example:  $4 \times 4 = 16$  so 16 is the square number.

**Cube numbers:** The first five cube numbers are 1, 8, 27, 64 and 125. Cube numbers are the result when a number is multiplied by itself and then itself again – don't get confused with multiplying by 3 – this is different. For example:  $2 \times 2 \times 2 = 4 \times 2 = 8$  so 8 is the cube number.

**There is a good opportunity here to practise any tables facts which your child still finds tricky.**

## Top tips to help with learning:

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 don't need to practise them all at once: perhaps you could have a fact of the day or focus on the facts which your child finds tricky.

Think of the question – One player thinks of a times table question (e.g.  $4 \times 12$ ) and states the answer. The other player has to guess the original question. What is the missing factor?  $5 \times ? = 45$

### Web links:

[Factor Trees \(transum.org\)](http://Factor Trees (transum.org))

[Factors, multiples and primes - KS2 Maths - BBC Bitesize](#) – a useful clip to explain.



# Key Instant Recall Facts

## Year 5 – Autumn

**I know the doubles and halves of two-digit numbers.  
I know Roman numerals to 20, multiples of 10 to 100, 500 and 1,000.**

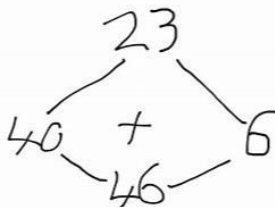
**Doubles and halves:** Recall all doubles and halves of 2-digit numbers. Here are some examples.

Double 22 = 44

Double 75 = 150

Half of 64 = 32

Half of 56 = 28



To help with learning doubling diamonds are a good strategy.

Partition the number into tens and ones. Double the tens, double the ones and then recombine. Odd numbers are trickier to halve and doubling over ten is harder too.

### Roman numerals:

1	I
2	II
3	III
4	IV
5	V
6	VI
7	VII
8	VIII
9	IX
10	X

11	XI
20	XX
30	XXX
40	XL
50	L
60	LI
70	LII
80	LIII
90	XC
100	C

D	M
500	1000

Matching cards: You could make some matching cards with numbers in Roman numerals and numbers using our digits. Children can match these.

Cards could then be used with a base board using our numerals and your child could match the Roman numerals numbers to the base board as quickly as possible.

Where do we find Roman numerals? Look out for examples on TV credits and clocks and practise converting the times.

### Top tips to help with learning:

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 don't need to practise them all at once: perhaps you could have a fact of the day or focus on the facts which your child finds tricky.

#### Web links:

[Roman Numerals - Free Math Games for Kids \(wartgames.com\)](http://wartgames.com)



# Key Instant Recall Facts

## Year 5 – Spring

I know the answer to a question where you multiply or divide a whole number by 10, 100 or 1,000.

By the end of this half term, children should be able to work out the following facts and other similar facts.

$$5 \times 10 = 50$$

$$80 \div 10 = 8$$

$$23 \times 10 = 230$$

$$97 \div 10 = 9.7$$

$$217 \times 10 = 2170$$

$$456 \div 10 = 45.6$$

$$7 \times 100 = 700$$

$$900 \div 100 = 9$$

$$84 \times 100 = 8400$$

$$72 \div 100 = 0.72$$

$$589 \times 100 = 58,900$$

$$312 \div 100 = 3.12$$

$$4 \times 1000 = 4000$$

$$2000 \div 1000 = 2$$

$$72 \times 1000 = 72,000$$

$$8540 \div 1000 = 8.54$$

$$423 \times 1000 = 423,000$$

$$601 \div 1000 = 0.601$$

### Key Vocabulary

What is 5 multiplied by 10?

What is 100 times 67?

What is 723 divided by 1000?

hundreds, tens, ones, tenths, hundredths, thousandths

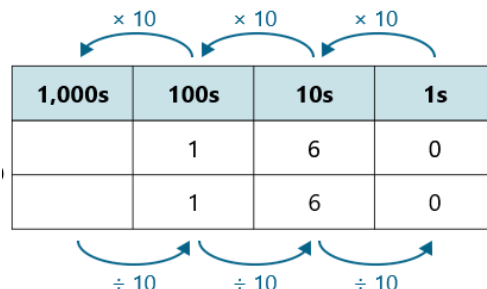
These are just examples of the facts for this term. Children should be able to answer these questions in any order, including missing number questions e.g.  $100 \times \bigcirc = 56,000$  or  $\bigcirc \div 10 = 760$ .

Top tips to help with learning:

The secret to success is practising **little** and **often**. Use time wisely.

It is important to refer to the digits, rather than the decimal point, moving when multiplying or

dividing by 10, 100 or 1000.



### Web links:

[Times or Divide Bingo - 7-11 year olds - Topmarks](#)

[Moving Digit Cards - 7-14 year olds - Topmarks](#) – nice animation of how digits work



# Key Instant Recall Facts

Year 5 – Spring

**I know decimal equivalents for thousandths.**

**I know decimal pairs to total 1 (two-decimal places)**

**I know the fraction, decimal and percentage equivalents.**

## Facts to learn:

### Decimal equivalents to thousandths.

$0.001 = \frac{1}{1000}$	$0.002 = \frac{2}{1000}$
$0.003 = \frac{3}{1000}$	$0.004 = \frac{4}{1000}$
$0.005 = \frac{5}{1000}$	$0.006 = \frac{6}{1000}$
$0.231 = \frac{231}{1000}$	$0.652 = \frac{652}{1000}$
$0.018 = \frac{18}{1000}$	$1 = \frac{1000}{1000}$

### Decimal pairs to total 1. For example:

$0.11 + 0.89$	$0.12 + 0.88$
$0.13 + 0.87$	$0.14 + 0.86$
$0.15 + 0.85$	$0.16 + 0.84$
$0.17 + 0.83$	$0.18 + 0.82$
$0.19 + 0.81$	$0.20 + 0.80$
$0.21 + 0.79$	$0.22 + 0.78$
Continue in this pattern until	
$0.98 + 0.02$	$0.99 + 0.01$

It is also useful to know the facts as subtractions.

Using the fact families:  $0.11 + 0.89$ ,  $0.89 + 0.11$ .

$\frac{1}{4}$	0.25	25%		$\frac{1}{3}$	0.333	33.3%		$\frac{2}{10}$	0.2	20%	and other tenths to ten tenths.
$\frac{1}{2}$	0.5	50%		$\frac{2}{3}$	0.666	66.6%		$\frac{1}{25}$	0.04	4%	
$\frac{3}{4}$	0.75	75%		$\frac{1}{10}$	0.1	10%		$\frac{2}{25}$	0.08	8%	and other fractions with 25 as a denominator.

## Top tips to help with learning:

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 don't need to practise them all at once: perhaps you could have a fact of the day.

### Web links:

[Match Fractions Decimals and Percentages - Mathsframe](#)

[Decention Jr | Fractions, Decimals and Percent | Math Playground](#)

[Matching Fractions, Decimals and Percentages \(maths.org\)](#)



# Key Instant Recall Facts

Year 5 – Summer

## I know times tables facts using multiplication and division with multiples of 10 and 100.

We have learnt how to multiply and divide by 10, 100 and 1000 so this information and our times tables knowledge will help with learning these facts.

Facts include:

Multiples of 10: 20, 30, 40, 50, 60, 70, 80 and 90

Multiples of 100: 200, 300, 400, 500, 600, 700, 800 and 900.

Use all times tables and their related division facts.

For example:  $3 \times 9$  and  $9 \times 3$     $30 \times 9$  and  $9 \times 30$     $300 \times 9$  and  $9 \times 300$

$27 \div 9$  and  $27 \div 3$     $270 \div 9$  and  $270 \div 3$     $2,700 \div 9$  and  $2,700 \div 3$

### Top tips to help with learning:

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 don't need to practise them all at once: perhaps you could have a fact of the day.

Chain facts:

Make chains of related facts to show how when we know one fact, we can connect these to other facts.

Use a time limit e.g. 2 minutes to find as many related facts for a table fact as possible. Repeat – Can you beat your score? Can you find as many facts in 1 minute and 30 seconds?

Rainbow write the facts:

Use colour to record the facts, or even a key so multiples of 10 are one colour and multiples of 100 are another.

Find the odd facts out:

Give three or more facts e.g.  $20 \times 80$     $2 \times 800$     $180 \div 20$    Which is the odd one out and why? Can you replace the incorrect fact with a correct one?

**Web links:**

[Multiplication Games for Kids Online - SplashLearn](#)



# Key Instant Recall Facts

Year 5 – Summer

I know <u>10</u> is equal to <u>1</u> 100 10	I know <u>100</u> is equal to <u>1</u> 1000 10
I know <u>10</u> is equal to <u>1</u> 1000 100	I know a straight line is equal to 180°
I know 90° x 2 = 180° 90° x 3 = 270° and 90° x 4 = 360°	I know 180° x 2 = 360°

## Top tips to help with learning:

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?

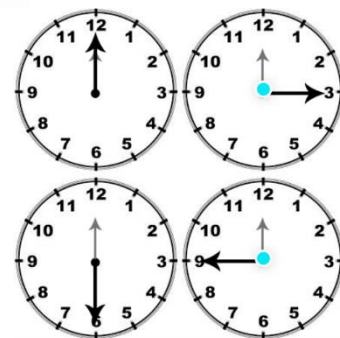
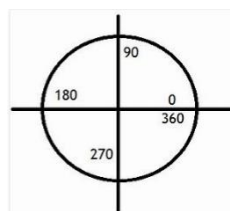
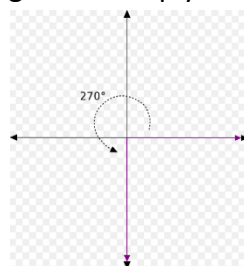
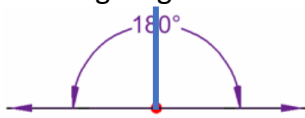
You don't need to practise them all at once: perhaps you could have a fact of the day.

Poster design:

These facts could be displayed on a colourful poster and put up in a room so they are eye-catching.

Your child could create a fact sentence for each and then you could cover different parts of the fact so they have to guess the missing amount. For example:  x 2 = 360°

Drawing diagrams of the angles will help your child to understand and remember the image.



Links could also be made with angles and times on a clock face.

