



# Key Instant Recall Facts

## Year 6 – Autumn Term 1

I can derive multiplication and division facts using decimal numbers (e.g.  $8 \times 0.7 = 5.6$ )

By the end of this half term, children should be able to calculate multiplication facts for decimal numbers using their knowledge of times tables

Use your knowledge of times table facts to calculate answers to questions using decimals.

E.g.

$$4 \times 7 = 28$$

So

$$0.4 \times 7 = 2.8$$

Or

$$4 \times 0.7 = 2.8$$

Or

$$40 \times 70 = 2800$$

Etc.

### Key vocabulary

Times

Multiplied by

Lots of

Shared between

Divisible by

Factor

Children should be able to explain how they reached their answer.

### 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

Try questions such as these:

Q. A carpenter needs to cut a plank of wood that is 4.8m long into 8 pieces. How long will each piece of wood be?

Q. A single paperclip is 9cm long. What is the greatest number of paper clips that can be made from 6.3m of wire?



# Key Instant Recall Facts

## Year 6 – Autumn Term 2

### I can identify common factors of a pair of numbers

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

The factors of a number are all numbers  
are divisible by the number with no remainder.

E.g. the factors of 24 are 1, 2, 3, 4, 6, 8, 12 and  
24 the factors of 56 are 1, 2, 4, 7, 8, 14, 28 and

The common factors of two numbers are the  
E.g. the common factors of 24 and 56 are 1, 2, 4  
and 8 the highest common factor of 24 and 56 is 8.

Key vocabulary  
factor  
common factor  
highest common  
factor  
lowest common  
factor

Children should be able to explain how they know that a number is a  
common factor. E.g. 8 is a common factor of 24 and 56 because  $24 = 8 \times 3$   
and  $56 = 8 \times 7$

### 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

Play games - Choose two numbers. Take it in turns to name factors. Who can  
find the most?

NOTE - We do not expect children to know all the factors of a number  
instantly but would expect them to be able to work them out within a  
minute or so for numbers under 100.



# Key Instant Recall Facts

## Year 6 – Spring Term 1

### I know common fraction, decimal and percentage equivalences

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

$\frac{1}{2}$	=	0.5	=	50%
$\frac{1}{4}$	=	0.25	=	25%
$\frac{3}{4}$	=	0.75	=	75%
$\frac{1}{10}$	=	0.1	=	10%
$\frac{3}{10}$	=	0.3	=	30%
$\frac{1}{5}$	=	0.2	=	20%
$\frac{3}{5}$	=	0.6	=	60%
$\frac{1}{100}$	=	0.01	=	1%
Etc...				

### Key vocabulary

Write 0.75 as  
a fraction

Write  $\frac{1}{4}$  as a  
decimal What is  $\frac{3}{4}$   
as a percentage?

Children should be able to convert between decimals, fractions and percentages for  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{3}{4}$  and any number of tenths and hundredths.

### 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

Play games – Make some cards with equivalent fractions, decimals and percentages. Use these to play the memory game or snap. Or make your own dominoes with fractions on one side and decimals on the other.



# Key Instant Recall Facts

## Year 6 - Spring Term 2

### I know the first five cube numbers

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

Cube number is any number multiplied by itself three times. E.g.  $n \times n \times n$ .

It can be written as  $n^3$

The first five cube numbers are:

$$1 \times 1 \times 1 = 1$$

$$2 \times 2 \times 2 = 8$$

$$3 \times 3 \times 3 = 27$$

$$4 \times 4 \times 4 = 64$$

$$5 \times 5 \times 5 = 125$$

### Key vocabulary

cube number

Children should be able to explain what a cube number is and recall the first five cube numbers quickly.

### 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 visual images to help children understand what a cube number is.



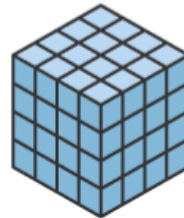
1 is the first cube number, because  $1 \times 1 \times 1 = 1$



8 is the second cube number, because  $2 \times 2 \times 2 = 8$



27 is the third cube number, because  $3 \times 3 \times 3 = 27$



64 is the fourth cube number, because  $4 \times 4 \times 4 = 64$



# Key Instant Recall Facts

## Year 6 – Summer Term 1

### I Know doubles and halves of two-digit decimals

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 mentally be able to calculate halves and doubles of 2-digit decimals by partitioning (splitting) the number into its place value parts.

See example below:

Find half of 7.28

Half of 7 = 3.5

Half of 0.2 = 0.1

Half 0.08 = 0.04

$3.5 + 0.1 + 0.04 = 3.64$

### Key vocabulary

What is half of 6.42?

What is double 12.27?

### 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

Double and halve the same number with your child; practise partitioning the number aloud first, e.g.  $7.28 = 7$  ones (7), 2 tenths (0.2), 8 hundredths (0.08)





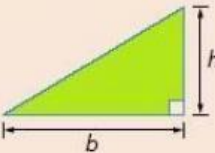
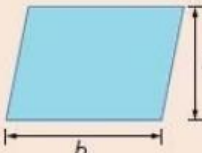
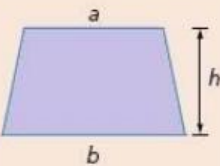
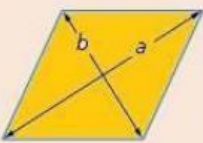

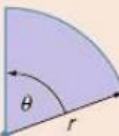
# Key Instant Recall Facts

## Year 6 – Summer Term 2

I know the formulae for finding the area of different shapes

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

The area of a shape is a measure of the size of its surface.

<p><b>Square</b> Area = <math>l^2</math></p> 	<p><b>Rectangle</b> Area = <math>l \times w</math></p> 	<p><b>Triangle</b> Area = <math>\frac{1}{2} b \times h</math></p> 	<p><b>Parallelogram</b> Area = <math>b \times h</math></p> 
<p><b>Trapezium</b> Area = <math>\frac{1}{2} (a + b)h</math></p> 	<p><b>Rhombus</b> Area = <math>\frac{1}{2} a \times b</math></p> 	<p><b>Circle</b> Area = <math>\pi r^2</math></p> 	<p><b>Sector</b> Area = <math>\frac{\theta}{360} \pi r^2</math></p> 

Key vocabulary  
 area  
 base  
 height  
 pi  
 radius

Children should also be able to recall the formula for finding the area of different shapes.

### 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. They must use language such as height, length, base, width and radius when recalling the appropriate formulae. Practise recalling the definition of this vocabulary together – you could make flashcards to help your child remember.

