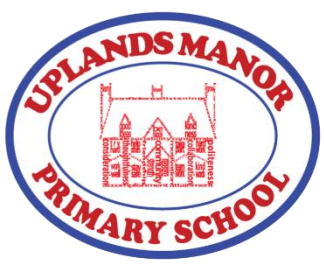


Uplands Manor Primary School

Key Instant Recall Facts (KIRFs)

Year 6





Uplands Manor Primary School
Key Instant Recall Facts
Year 6 - Autumn 1

Targets:
I can count in steps of 25, 75
and 60

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

These counting patterns are incredibly helpful when working with money, time and with fractions, decimals and percentages. Fluency at counting lightens the mental load when calculating with bigger numbers.

Top Tips

The secret to success is practising little and often.
Use time wisely.
These skills are great to practise while travelling.
Make links to times tables that you know: if $4 \times 6 = 24$, then $4 \times 60 = 240$

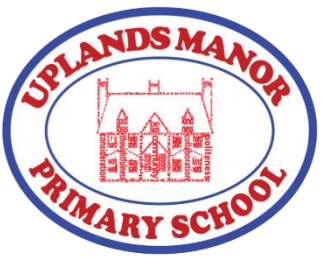
25	75	60
50	150	120
75	225	180
100	300	240
125	375	300
150	450	360
175	525	420
200	600	480
225	675	540
250	750	600
275	825	660
300	900	720

Key Vocabulary

What comes after ____ in 25s?

What comes before ____ in 75s?

What would ____ 60s make?



Uplands Manor Primary School
Key Instant Recall Facts
Year 6 - Autumn 2

Targets:

I can find common factors of 2 numbers.

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

When given a number, children should be able to state numbers that can be multiplied to give that answer. Some numbers have lots of factors: e.g. Factors of 24 = 1, 2, 3, 4, 6, 8, 12, 24

Common factors means finding numbers that are factors of 2 different numbers. E.g. 6 and 15 can **both** be divided by 1 and 3 but not 2 or 5

Using a method to find all of the factors of a number makes this easier. Use a system starting from 1.
Does it divide by 2? Does it divide by 3? etc. until you have found every factor.

Remember: 1 is always a factor!

Key Vocabulary

Can you find all of the factors of 24?

What number can both 28 and 44 be divided by?

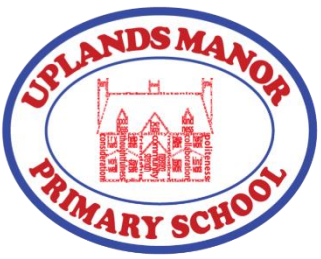
What is the highest common factor of 15 and 75?

Top Tips

Play games - There is an activity at <http://www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html> to practise finding factor pairs.

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

<https://www.topmarks.co.uk/maths-games/7-11-years/multiplication-and-division> - lots of games here. Choose two numbers between 1 and 144. Take it in turns to name factor pairs. Who can find the most?



Uplands Manor Primary School
Key Instant Recall Facts
Year 6 – Spring 1

Targets:

I know the decimal and percentage equivalents of the fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, tenths and fifths.

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

Make links between fifths and tenths, this will help to remember their equivalents.

Don't forget about hundredths – they are really helpful as a stepping stone to learning percentages.

E.g. $\frac{4}{10} = \frac{40}{100} = 40\%$

$\frac{1}{2} = 0.5 = 50\%$	$\frac{1}{100} = 0.01 = 1\%$
$\frac{1}{4} = 0.25 = 25\%$	$\frac{7}{100} = 0.07 = 7\%$
$\frac{3}{4} = 0.75 = 75\%$	$\frac{21}{100} = 0.21 = 21\%$
$\frac{1}{10} = 0.1 = 10\%$	$\frac{75}{100} = 0.75 = 75\%$
$\frac{1}{5} = 0.2 = 20\%$	$\frac{99}{100} = 0.99 = 99\%$
$\frac{3}{5} = 0.6 = 60\%$	
$\frac{9}{10} = 0.9 = 90\%$	

Key Vocabulary

How many tenths is 0.8?

How many hundredths is 0.12?

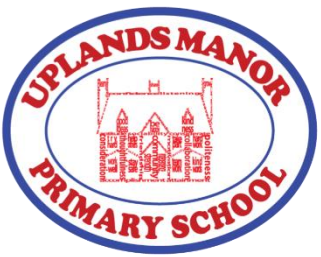
Write 0.75 as a fraction.

Write $\frac{1}{4}$ as a decimal.

Top Tips

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

<https://www.topmarks.co.uk/maths-games/daily10> - Level 6 Fractions – decimal equivalent



Uplands Manor Primary School
Key Instant Recall Facts
Year 6 – Spring 2

Targets:

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.

Your child may have learnt primes to 20. Recap these, then extend this knowledge to 50.

Top Tips

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

It's really 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 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?

A prime number is a number with exactly 2 factors. It can only be divided by itself and 1.

The following numbers are prime numbers:

2, 3, 5, 7, 11, 13, 17, 19

1 is not a prime number because it only has one factor: 1.

A composite number is divisible by a number other than 1 or itself.

The following numbers are composite numbers: 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20

Using a 100 square can help children to spot patterns up to 50. Start by crossing out multiples of 2 and 5, then work through multiples of 3 and 2. This will help to show the remaining primes.

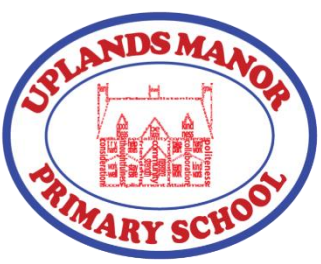
Key Vocabulary

Prime number

Composite number

Factor

Multiple



Uplands Manor Primary School
Key Instant Recall Facts
Year 6 – Summer 1

Targets:

I know the square root of square numbers up to 15×15 .

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

Your child may have previously learnt up to 12×12 but might need to spend some time first learning extra number facts:

$$13 \times 13 = 169$$

$$14 \times 14 = 196$$

$$15 \times 15 = 225$$

Square roots:

$$\sqrt{1} = 1$$

$$\sqrt{4} = 2$$

$$\sqrt{9} = 3$$

$$\sqrt{16} = 4$$

$$\sqrt{25} = 5$$

$$\sqrt{36} = 6$$

$$\sqrt{49} = 7$$

$$\sqrt{64} = 8$$

$$\sqrt{81} = 9$$

$$\sqrt{100} = 10$$

$$\sqrt{121} = 11$$

$$\sqrt{144} = 12$$

$$\sqrt{169} = 13$$

$$\sqrt{196} = 14$$

$$\sqrt{225} = 15$$

Key Vocabulary

Squared number

Square root

To square a number,
I times it by itself.

Top Tips

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

Start by revising your square numbers – can you list them all?

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.

Games: <https://www.topmarks.co.uk/maths-games/hit-the-button>



Uplands Manor Primary School

Key Instant Recall Facts

Year 6 – Summer 2

Targets:
I can remember my previously learnt KIRFs

By the end of Year 6, children should be able to recall all of the key facts from KIRFs that they have covered in this and previous years.

Add and subtract 1 and 0 up to 10.	I know number bonds to 20.	I know number bonds to 100.	I know the multiplication and division facts for the 6 and 8 times tables.	I know the multiplication and division facts for all times tables up to 12 x 12.	I can count in steps of 25, 75 and 60.
I know doubles, halves and near doubles to 5.	I can add and subtract, bridging ten by making ten and then some.	I know the multiplication and division facts for the 10 and 5 times tables.	I know the multiplication and division facts for the 9 and 11 times tables.	I can find factor pairs of a number.	I can identify common factors of a pair of numbers.
I can add and subtract 2 to/from any number up to 10.	I can add numbers by compensating.	I know the multiplication and division facts for the 4 times table.	I know the multiplication and division facts for the 7 times tables.	I can identify prime numbers up to 20.	I know the decimal and percentage equivalents of the fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, tenths and fifths.
I know number bonds to 10.	I know near doubles to 10.	I know the multiplication and division fact for the 8 times table.	I know the multiplication and division facts for all times tables up to 12 x 12.	I can recall square numbers up to 144 and their square roots.	I can identify prime numbers up to 50.
I know doubles and halves to 10.	I know the multiplication and division facts for the 2 and 10 times tables.	I know the multiplication and division facts for the 3 times tables.	I know the multiplication and division facts for all times tables up to 12 x 12.	Know the decimal and percentage equivalents of the fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, tenths and hundredths.	I know the square root of square numbers to 15 x 15.
I can add and subtract ten to/from a number.	I know the multiplication and division facts for the 5 times tables.	I can tell the time to the nearest minute.	I can multiply and divide 1- and 2-digit numbers by 10 and 100.	I know decimal number bonds to 1 and 10.	Revisit Previous KIRFs

Top Tips

Revisiting prior knowledge is key to remembering it instantly!

Start with the skills you found hardest – they are the most important to revise. Look, cover check – look at the information you are trying to recall, cover it up and see how many facts you can write down from memory. Then check your work. Were you right? Did you miss any key knowledge? Check the school website uplandsmanor.sch.life for advice on each KIRF number fact.