



Key Instant Recall Facts Year 5 Summer Term

I can recall square numbers up to 144 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.

$$\begin{aligned}1^2 &= 1 \times 1 = 1 \\2^2 &= 2 \times 2 = 4 \\3^2 &= 3 \times 3 = 9 \\4^2 &= 4 \times 4 = 16 \\5^2 &= 5 \times 5 = 25 \\6^2 &= 6 \times 6 = 36 \\7^2 &= 7 \times 7 = 49 \\8^2 &= 8 \times 8 = 64 \\9^2 &= 9 \times 9 = 81 \\10^2 &= 10 \times 10 = 100 \\11^2 &= 11 \times 11 = 121 \\12^2 &= 12 \times 12 = 144\end{aligned}$$

$$\begin{aligned}\sqrt{1} &= 1 \\\sqrt{4} &= 2 \\\sqrt{9} &= 3 \\\sqrt{16} &= 4 \\\sqrt{25} &= 5 \\\sqrt{36} &= 6 \\\sqrt{49} &= 7 \\\sqrt{64} &= 8 \\\sqrt{81} &= 9 \\\sqrt{100} &= 10 \\\sqrt{121} &= 11 \\\sqrt{144} &= 12\end{aligned}$$

Key Vocabulary



What is 8 **squared**?

What is 7 **multiplied by** itself?

What is **the square root** of 144?

Is 81 a **square number**?

Children should also be able to recognise whether a number below 150 is a square number or not.

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.

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?

Use memory tricks – For those hard-to-remember facts, www.multiplication.com has some strange picture stories to help children remember.



Key Instant Recall Facts Year 5 Summer Term

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 these times tables, they should be able to state a factor pair which multiply to make this number. Below are some examples:

$$24 = 4 \times 6$$

$$24 = 8 \times 3$$

$$56 = 7 \times 8$$

$$54 = 9 \times 6$$

$$42 = 6 \times 7$$

$$25 = 5 \times 5$$

$$84 = 7 \times 12$$

$$15 = 5 \times 3$$

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 **multiplied** by 12 equals 72.

Children should also be able to recognise whether a number below 150 is a square number or not.

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.

Play games - There is an activity at www.conkermaths.org 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.

Use memory tricks – For those hard-to-remember facts, www.multiplication.com has some strange picture stories to help children remember.