



## KEY INSTANT RECALL FACTS

STAGE: 6

SPRING: 1

I know the multiplication and division facts for all times tables up to  $12 \times 12$ , including square numbers, square roots and squares of the corresponding multiples of 10. I can use place value to multiply pairs of multiples of 10 and 100 and divide multiples of 100 by a multiple of 10 or 100. I can use my knowledge of multiplication facts and place value to multiply and divide with decimals and multiples of 10 or 100. I can list factor pairs for given numbers and identify numbers with odd and even numbers of factors.

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

$$12 \times 8 = 96$$

$$8 \times 9 = 72$$

$$132 \div 11 = 12$$

$$96 \div 8 = 12$$

$$8^2 = 64$$

$$5^2 = 25$$

$$40^2 = 1600$$

$$120^2 = 14,400$$

$$\sqrt{121} = 11$$

$$\sqrt{144} = 12$$

$$50 \times 30 = 1500$$

$$600 \times 20 = 12,000$$

$$300 \div 50 = 60$$

$$800 \div 40 = 20$$

$$2100 \div 300 = 7$$

$$0.8 \times 7 = 5.6$$

$$4.8 \div 6 = 0.8$$

$$0.3 \times 40 = 12$$

**Factor pairs for 12:**

$$1 \times 12$$

$$2 \times 6$$

$$3 \times 4$$

6 factors altogether

**Factor pairs for 16:**

$$1 \times 16$$

$$2 \times 8$$

$$4^2$$

5 factors altogether

### Key Vocabulary

5 squared is 25

The square root of 81 is 9

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

The **product** of 0.6 and 4 is 2.4

Find two numbers whose **product** is 48.

I know that 8 is a factor of 56 because 8 multiplied by 7 equals 56.

They should be able to answer tables questions in any order, including missing number questions e.g.  $12 \times \bigcirc = 132$  or  $\bigcirc \div 9 = 7$ . They should also be able to list all factor pairs for a given number e.g. for 24 the factor pairs are:  $1 \times 24$ ,  $2 \times 12$ ,  $3 \times 8$ ,  $4 \times 6$  and discuss when numbers will have an odd number of factors.

### 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 don't 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.

On-line - There is an activity at [www.conkermaths.org](http://www.conkermaths.org) to practise finding factor pairs.

<http://www.arcademics.com/games/meteor/meteor.html> is a game to practise multiplication facts.

Play Games – Pick a number e.g. 36. Between you, how many multiplication and division facts can you think of that involve this number? e.g.  $36 \div 9 = 4$ ,  $40 \times 9 = 360$ ,  $3 \times 1.2 = 3.6$  etc. Take it in turns to write a new fact. How many can you write in 3 minutes?