



KEY INSTANT RECALL FACTS

STAGE: 4

AUTUMN: 1

I know the sums and differences of all pairs of multiples of 10, 100 and 1000 and what to add to any three-digit number to make the next multiple of 100. I also know doubles of numbers 1 to 100 and corresponding halves and doubles of multiples of 10 and 100 and corresponding halves.

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

$$30 + 80 = 110$$

$$50 + 70 = 120$$

$$120 - 40 = 80$$

$$240 - 150 = 90$$

$$400 + 500 = 900$$

$$800 + 700 = 1500$$

$$1200 - 800 = 400$$

$$1700 - 900 = 800$$

$$3000 + 7000 = 10,000$$

$$4000 + 9000 = 13,000$$

$$14,000 - 5000 = 9000$$

$$16,000 - 8000 = 8000$$

$$521 + \bigcirc = 600$$

$$479 + \bigcirc = 500$$

$$355 + \bigcirc = 400$$

$$872 + \bigcirc = 900$$

$$788 + \bigcirc = 800$$

$$964 + \bigcirc = 1000$$

$$213 + \bigcirc = 300$$

$$38 \times 2 = 76$$

$$64 \times 2 = 128$$

$$72 \div 2 = 36$$

$$96 \div 2 = 48$$

$$60 \times 2 = 120$$

$$170 \times 2 = 340$$

$$560 \times 2 = 1120$$

$$160 \div 2 = 80$$

$$240 \div 2 = 120$$

$$380 \div 2 = 190$$

$$400 \times 2 = 800$$

$$600 \times 2 = 1200$$

$$900 \times 2 = 1800$$

$$800 \div 2 = 400$$

$$1600 \div 2 = 800$$

$$1200 \div 2 = 600$$

Key Vocabulary

What do I **add** to 50 to make 120?

What do I **add** to 479 to make 500?

What is 1700 **take away** 900?

What is 500 **less than** 14,000?

What is **double** 38?

What is **half of** 16,000?

They should also be able to answer missing number questions e.g. $4000 + \bigcirc = 1300$ or $14,000 - \bigcirc = 9000$.

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.

Use what you already know – Encourage your child to find the connection between number bonds to 20 and number bonds of multiples of 10, 100 and 1000.

Ping Pong – In this game, the parent says, "Ping," and the child replies, "Pong." Then the parent says a two-digit number and the child says what you would add to it to make the next multiple of 100.

Practise online – Go to www.conkermaths.com and see how many questions you can answer in just 90 seconds.



KEY INSTANT RECALL FACTS

STAGE: 4

Autumn 2

I know the multiplication and division facts for the 9 and 11 times tables.

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

$9 \times 1 = 9$	$9 \div 9 = 1$	$11 \times 1 = 11$	$11 \div 11 = 1$
$9 \times 2 = 18$	$18 \div 9 = 2$	$11 \times 2 = 22$	$22 \div 11 = 2$
$9 \times 3 = 27$	$27 \div 9 = 3$	$11 \times 3 = 33$	$33 \div 11 = 3$
$9 \times 4 = 36$	$36 \div 9 = 4$	$11 \times 4 = 44$	$44 \div 11 = 4$
$9 \times 5 = 45$	$45 \div 9 = 5$	$11 \times 5 = 55$	$55 \div 11 = 5$
$9 \times 6 = 54$	$54 \div 9 = 6$	$11 \times 6 = 66$	$66 \div 11 = 6$
$9 \times 7 = 63$	$63 \div 9 = 7$	$11 \times 7 = 77$	$77 \div 11 = 7$
$9 \times 8 = 72$	$72 \div 9 = 8$	$11 \times 8 = 88$	$88 \div 11 = 8$
$9 \times 9 = 81$	$81 \div 9 = 9$	$11 \times 9 = 99$	$99 \div 11 = 9$
$9 \times 10 = 90$	$90 \div 9 = 10$	$11 \times 10 = 110$	$110 \div 11 = 10$
$9 \times 11 = 99$	$99 \div 9 = 11$	$11 \times 11 = 121$	$121 \div 11 = 11$
$9 \times 12 = 108$	$108 \div 9 = 12$	$11 \times 12 = 132$	$132 \div 11 = 12$

Key Vocabulary

What is 9 **multiplied by** 8?

What is 11 **times** 8?

What is 110 **divided by** 11?

They should be able to answer these questions in any order, including missing number questions e.g. $9 \times \bigcirc = 54$ or $\bigcirc \div 9 = 11$.

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 family of the day. If you would like more ideas, please speak to your child's teacher.

Look for patterns – These times tables are full of patterns for your child to find. How many can they spot?

Use your ten times table – Multiply a number by 10 and subtract the original number (e.g. $7 \times 10 - 7 = 70 - 7 = 63$). What do you notice?

What happens if you add your original number instead?

(e.g. $7 \times 10 + 7 = 70 + 7 = 77$)

What do you already know? – Your child will already know many of these facts from the 2, 3, 4, 5, 6, 8 and 10 times tables. It might be worth practising these again!



KEY INSTANT RECALL FACTS

STAGE: 4

Spring 1

I know the multiplication and division facts for the 12 times table.

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

$12 \times 1 = 12$	$1 \times 12 = 12$	$12 \div 12 = 1$	$12 \div 1 = 12$
$12 \times 2 = 24$	$2 \times 12 = 24$	$24 \div 12 = 2$	$24 \div 2 = 12$
$12 \times 3 = 36$	$3 \times 12 = 36$	$36 \div 12 = 3$	$36 \div 3 = 12$
$12 \times 4 = 48$	$4 \times 12 = 48$	$48 \div 12 = 4$	$48 \div 4 = 12$
$12 \times 5 = 60$	$5 \times 12 = 60$	$60 \div 12 = 5$	$60 \div 5 = 12$
$12 \times 6 = 72$	$6 \times 12 = 72$	$72 \div 12 = 6$	$72 \div 6 = 12$
$12 \times 7 = 84$	$7 \times 12 = 84$	$84 \div 12 = 7$	$84 \div 7 = 12$
$12 \times 8 = 96$	$8 \times 12 = 96$	$96 \div 12 = 8$	$96 \div 8 = 12$
$12 \times 9 = 108$	$9 \times 12 = 108$	$108 \div 12 = 9$	$108 \div 9 = 12$
$12 \times 10 = 120$	$10 \times 12 = 120$	$120 \div 12 = 10$	$120 \div 10 = 12$
$12 \times 11 = 132$	$11 \times 12 = 132$	$132 \div 12 = 11$	$132 \div 11 = 12$
$12 \times 12 = 144$	$12 \times 12 = 144$	$144 \div 12 = 12$	$144 \div 12 = 12$

Key Vocabulary

What is 12 **multiplied by** 6?

What is 12 **times** 12?

What is 72 **divided by** 12?

They should be able to answer these questions in any order, including missing number questions e.g.

$12 \times \bigcirc = 96$ or $\bigcirc \div 12 = 11$.

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 family of the day. If you would like more ideas, please speak to your child's teacher.

Songs and Chants – You can buy Times Tables CDs or find multiplication songs and chants online. If your child creates their own song, this can make the times tables even more memorable.

Double your sixes – Multiplying a number by 12 is the same as multiply by 6 and then doubling the answer. $6 \times 4 = 24$ and double 24 is 48, so $12 \times 4 = 48$.

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

STAGE: 4

SPRING: 2

I can round any number to the nearest 10, 100 or 1000 and can round decimals with one decimal place to the nearest whole number.

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

Round to nearest 10

37 → 40

63 → 60

45 → 50

221 → 220

573 → 570

648 → 650

Round to nearest 100

460 → 500

740 → 700

2080 → 2100

4519 → 4500

6972 → 7000

Round to nearest 1000

5267 → 5000

4963 → 5000

7099 → 7000

67,542 → 68,000

55,455 → 55,000

Round to nearest whole

4.6 → 5

5.4 → 5

45.7 → 46

68.5 → 69

56.1 → 56

78.9 → 79

Key Vocabulary

What is 37 rounded to the nearest 10?

What is 6897 rounded to the nearest 100?

What is 54,987 rounded to the nearest thousand?

What is 75.4 rounded to the nearest whole number?

They should also be able to give a range of numbers that will round to a given answer e.g. when rounding to the nearest ten what is the largest/smallest number that will round to 60?

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.

Look for patterns – Talk to your child about what happens when rounding with digits with 0 to 4 or 5 to 9 in the significant column. The following website gives some rules for rounding:

<https://www.mathsisfun.com/rounding-numbers.html>

Practise online – Go to <http://www.topmarks.co.uk/Flash.aspx?f=DartboardRoundingv2> or <http://mathszone.co.uk/count-and-understand/rounding/to-practise-rounding-numbers>.



KEY INSTANT RECALL FACTS

STAGE: 4

SUMMER: 1

I can multiply and divide one and two digit numbers by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. Also I can recognise decimal equivalents of fractions.

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

$$7 \times 10 = 70$$

$$6 \times 100 = 600$$

$$\frac{1}{2} = 0.5$$

$$4 \times 10 = 40$$

$$4 \times 100 = 400$$

$$\frac{1}{4} = 0.25$$

$$56 \times 10 = 560$$

$$48 \times 100 = 4800$$

$$\frac{3}{4} = 0.75$$

$$73 \times 10 = 730$$

$$62 \times 100 = 6200$$

$$\frac{1}{10} = 0.1$$

$$80 \div 10 = 8$$

$$70 \div 100 = 0.7$$

$$\frac{5}{10} = 0.5$$

$$50 \div 10 = 5$$

$$20 \div 100 = 0.2$$

$$\frac{1}{100} = 0.01$$

$$3 \div 10 = 0.3$$

$$56 \div 100 = 0.56$$

$$\frac{2}{10} = 0.2$$

$$9 \div 10 = 0.9$$

$$48 \div 100 = 0.48$$

$$\frac{7}{100} = 0.07$$

$$28 \div 10 = 2.8$$

$$4 \div 100 = 0.04$$

$$\frac{75}{100} = 0.75$$

$$45 \div 10 = 4.5$$

$$6 \div 100 = 0.06$$

$$\frac{99}{100} = 0.99$$

Key Vocabulary

What is 5 **multiplied by** 10?

What is 10 **times** 0.9?

What is 70 **divided by** 10?

hundreds, tens, ones

tenths, hundredths

How would you write
48/100 as a decimal?

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. $10 \times \bigcirc = 5$ or $\bigcirc \div 10 = 60$. Children should also be able to convert between decimals and fractions 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 don't need to practise them all at once: perhaps you could have a fact family of the day. If you would like more ideas, please speak to your child's teacher.

It is important to refer to the digits, rather than the decimal point, moving when multiplying or dividing by 10 or 100. Using the following place value chart: <http://www.greatmathsteachingideas.com/wp-content/uploads/2012/02/Multiplying-and-dividing-by-10-100-and-1000.pdf> and writing the number on the chart first can help pupils see how the decimal point remains fixed and the digits shift left if multiplying and right if dividing.

Play games – This website is a game to help practise multiplying and dividing by 10 and 100: http://kids.britannica.com/lm/games/GM_5_5/GM_5_5.htm

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.



KEY INSTANT RECALL FACTS

STAGE: 4

SUMMER: 2

I know the multiplication and division facts for the 7 times table.

By the end of this half term, children should know the following facts, along with all other tables facts up to 12×12 . The aim is for them to recall these facts **instantly**.

$7 \times 1 = 7$	$1 \times 7 = 7$	$7 \div 7 = 1$	$7 \div 1 = 7$
$7 \times 2 = 14$	$2 \times 7 = 14$	$14 \div 7 = 2$	$14 \div 2 = 7$
$7 \times 3 = 21$	$3 \times 7 = 21$	$21 \div 7 = 3$	$21 \div 3 = 7$
$7 \times 4 = 28$	$4 \times 7 = 28$	$28 \div 7 = 4$	$28 \div 4 = 7$
$7 \times 5 = 35$	$5 \times 7 = 35$	$35 \div 7 = 5$	$35 \div 5 = 7$
$7 \times 6 = 42$	$6 \times 7 = 42$	$42 \div 7 = 6$	$42 \div 6 = 7$
$7 \times 7 = 49$	$7 \times 7 = 49$	$49 \div 7 = 7$	$49 \div 7 = 7$
$7 \times 8 = 56$	$8 \times 7 = 56$	$56 \div 7 = 8$	$56 \div 8 = 7$
$7 \times 9 = 63$	$9 \times 7 = 63$	$63 \div 7 = 9$	$63 \div 9 = 7$
$7 \times 10 = 70$	$10 \times 7 = 70$	$70 \div 7 = 10$	$70 \div 10 = 7$
$7 \times 11 = 77$	$11 \times 7 = 77$	$77 \div 7 = 11$	$77 \div 11 = 7$
$7 \times 12 = 84$	$12 \times 7 = 84$	$84 \div 7 = 12$	$84 \div 12 = 7$

Key Vocabulary

What is 7 **multiplied by** 6?

What is 7 **times** 8?

What is 84 **divided by** 7?

They should be able to answer these questions in any order, including missing number questions e.g. $7 \times \bigcirc = 28$ or $\bigcirc \div 6 = 7$.

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 don't need to practise them all at once: perhaps you could have a fact family of the day. If you would like more ideas, please speak to your child's teacher.

Songs and Chants – You can buy Times Tables CDs or find multiplication songs and chants online e.g. on Mathletics. If your child creates their own song, this can make the times tables even more memorable.

Order of difficulty – Ask your child to order these facts from the easiest to the most challenging. Can they explain why some facts are easier to remember? Then focus on practising the most challenging facts.

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

On line - There are tables games at the following website:

<http://resources.woodlands-junior.kent.sch.uk/maths/timestable/interactive.htm>