



Key Mental Calculation Facts

Year 4 – Autumn 1

I know number bonds to 100.

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

Some examples:

$60 + 40 = 100$	$37 + 63 = 100$
$40 + 60 = 100$	$63 + 37 = 100$
$100 - 40 = 60$	$100 - 63 = 37$
$100 - 60 = 40$	$100 - 37 = 63$
$75 + 25 = 100$	$48 + 52 = 100$
$25 + 75 = 100$	$52 + 48 = 100$
$100 - 25 = 75$	$100 - 52 = 48$
$100 - 75 = 25$	$100 - 48 = 52$

Key Vocabulary

What do I **add** to 65 to make 100?

What is 100 **take away** 6?

What is 13 **less than** 100?

How many more than 98 is 100?

What is the **difference** between 89 and 100?

This list includes some examples of facts that children should know. They should be able to answer questions including missing number questions e.g. $49 + \bigcirc = 100$ or $100 - \bigcirc = 72$.

Top Tips

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these mental calculation facts 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.

Buy one get three free - If your child knows one fact (e.g. $8 + 5 = 13$), can they tell you the other three facts in the same fact family? (e.g. $5 + 8 = 13$, $13 - 5 = 8$, $13 - 8 = 5$)

Use number bonds to 10 - How can number bonds to 10 help you work out number bonds to 100?



Key Mental Calculation Facts

Year 4 – Autumn 2

I know the multiplication and division facts for the 6 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**.

$6 \times 1 = 6$	$1 \times 6 = 6$	$6 \div 6 = 1$	$6 \div 1 = 6$
$6 \times 2 = 12$	$2 \times 6 = 12$	$12 \div 6 = 2$	$12 \div 2 = 6$
$6 \times 3 = 18$	$3 \times 6 = 18$	$18 \div 6 = 3$	$18 \div 3 = 6$
$6 \times 4 = 24$	$4 \times 6 = 24$	$24 \div 6 = 4$	$24 \div 4 = 6$
$6 \times 5 = 30$	$5 \times 6 = 30$	$30 \div 6 = 5$	$30 \div 5 = 6$
$6 \times 6 = 36$	$6 \times 6 = 36$	$36 \div 6 = 6$	$36 \div 6 = 6$
$6 \times 7 = 42$	$7 \times 6 = 42$	$42 \div 6 = 7$	$42 \div 7 = 6$
$6 \times 8 = 48$	$8 \times 6 = 48$	$48 \div 6 = 8$	$48 \div 8 = 6$
$6 \times 9 = 54$	$9 \times 6 = 54$	$54 \div 6 = 9$	$54 \div 9 = 6$
$6 \times 10 = 60$	$10 \times 6 = 60$	$60 \div 6 = 10$	$60 \div 10 = 6$
$6 \times 11 = 66$	$11 \times 6 = 66$	$66 \div 6 = 11$	$66 \div 11 = 6$
$6 \times 12 = 72$	$12 \times 6 = 72$	$72 \div 6 = 12$	$72 \div 12 = 6$

Key Vocabulary

What is 8 **multiplied by** 6?

What is 6 **times** 8?

What is 24 **divided by** 6?

They should be able to answer these questions in any order, including missing number questions e.g. $6 \times \bigcirc = 72$ or $\bigcirc \div 6 = 7$.

Top Tips

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these mental calculation facts 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 threes – Multiplying a number by 6 is the same as multiplying by 3 and then doubling the answer. $7 \times 3 = 21$ and double 21 is 42, so $7 \times 6 = 42$.

Buy one get three free – If your child knows one fact (e.g. $3 \times 6 = 18$), can they tell you the other three facts in the same fact family? ($6 \times 3 = 18$, $18 \div 3 = 6$, $18 \div 6 = 3$)

Warning! – When creating fact families, children sometimes get confused by the order of the numbers in the division number sentence. It is tempting to say that the biggest number goes first, but it is more helpful to say that the answer to the multiplication goes first, as this will help your child more in later years when they study fractions, decimals and algebra.

E.g. $6 \times 12 = 72$. The answer to the multiplication is 72, so $72 \div 6 = 12$ and $72 \div 12 = 6$



Key Mental Calculation Facts

Year 4 – Spring 1

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 8 **multiplied by** 6?

What is 6 **times** 8?

What is 24 **divided by** 6?

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 mental calculation facts 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 Mental Calculation Facts

Year 4 – Summer 1

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. 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 mental calculation facts 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.

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.



Key Mental Calculation Facts

Year 4 – Summer 2

I can multiply and divide single-digit numbers by 10 and 100.

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

$7 \times 10 = 70$

$10 \times 7 = 70$

$70 \div 7 = 10$

$70 \div 10 = 7$

$6 \times 100 = 600$

$100 \times 6 = 600$

$600 \div 6 = 100$

$600 \div 100 = 6$

$30 \times 10 = 300$

$10 \times 30 = 300$

$300 \div 30 = 10$

$300 \div 10 = 30$

$40 \times 100 = 4000$

$100 \times 40 = 4000$

$4000 \div 40 = 100$

$4000 \div 100 = 40$

$0.8 \times 10 = 8$

$10 \times 0.8 = 8$

$8 \div 0.8 = 10$

$8 \div 10 = 0.8$

$0.2 \times 10 = 2$

$10 \times 0.2 = 2$

$2 \div 0.2 = 10$

$2 \div 10 = 0.2$

Key Vocabulary

What is 5 **multiplied by** 10?

What is 10 **times** 0.9?

What is 700 **divided by** 70?

hundreds, tens, units

tenths, hundredths

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 $\bigcirc \div 10 = 60$.

Top Tips

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these mental calculation facts 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.