

Year 4 Home Learning Developing Fluency

Key Instant Recall Facts

Name: _____

Class: _____



Target Tracker

	I know	Instant Recall (date)
4A	Doubles and Halves	
4B	All number bonds to 20	
4C	x and ÷ by 4	
4D	x and ÷ by 8	
4E	x and ÷ by 3	
4F	Durations of time	
4G	Tell time (nearest minute)	
4H	Number bonds to 100	
41	x and ÷ by 6	
4J	x and ÷ by 9 and 11	
4K	decimal equivalents of fractions	
4L	x and ÷ by 7	
4M	x and ÷ by 10 and 100	



Year 4 – 4A

I know doubles and halves of numbers to 20.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

0 + 0 = 0	$\frac{1}{2}$ of 0 = 0	
1 + 1 = 2	½ of 2 = 1	11 + 11 = 22
2 + 2 = 4	½ of 4 = 2	12 + 12 = 24
3 + 3 = 6	½ of 6 = 3	13 + 13 = 26
4 + 4 = 8	$\frac{1}{2}$ of 8 = 4	14 + 14 = 28
5 + 5 = 10	½ of 10 = 5	15 + 15 = 30
6 + 6 = 12	½ of 12 = 6	16 + 16 = 32
7 + 7 = 14	½ of 14 = 7	17 + 17 = 34
8 + 8 = 16	½ of 16 = 8	18 + 18 = 36
9 + 9 = 18	½ of 18 = 9	19 + 19 = 38
10 + 10 = 20	½ of 20 = 10	20 + 20 = 40

Key Vocabulary

What is **double** 9? What is **half** of 14?

Top Tips

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

<u>Use what you already know</u> – Encourage your child to find the connection between the 2 times table and double facts.

<u>Ping Pong</u> – In this game, the parent says, "Ping," and the child replies, "Pong." Then the parent says a number and the child doubles it. For a harder version, the adult can say, "Pong." The child replies, "Ping," and then halves the next number given.

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

Mad Ma	aths Minutes	Mad Ma	ths Minutes
Doubles (to	double 20) Set A	Doubles (to	double 20) Set B
Double 17 =	Double 15 =	Double 11 =	Double 4 =
Double 4 =	Double 7 =	Double 17 =	Double 16 =
Double 13 =	Double 20 =	Double 1 =	Double 13 =
Double 18 =	Double 19 =	Double 19 =	Double 18 =
Double 10 =	Double 17 =	Double 16 =	Double 12 =
Double 19 =	Double 2 =	Double 8 =	Double 14 =
Double 14 =	Double 5 =	Double 17 =	Double 5 =
Double 8 =	Double 18 =	Double 11 =	Double 12 =
Double 15 =	Double 13 =	Double 2 =	Double 19 =
double 11 =	Double 9 =	Double 7 =	Double 20 =

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    Half of 4 =

                      21. Half of 16 =
                                             41. Half of 10 =

 Half of 8 =

                      22. Half of 20 =
                                             42. Half of 12 =

 Half of 2 = ...

                      ^{23}. Half of 14 =
                                             43. Half of 6 =

 Half of 18 = ...

                      24. Half of 10 =
                                             44. Half of 4 = 
                      25. Half of 2 =
                                             45. Half of 14 =

 Half of 20 =

 Half of 16 =

                      26. Half of 12 =
                                             46. Half of 8 =

 Half of 18 =

                      27. Half of 6 =
                                             47. Half of 20 =

 Half of 14 =

                      28. Half of 4 =
                                             48. Half of 16 =
                      29. Half of 12 =

 Half of 2 =

                                             49. Half of 6 =
10. Half of 18 =
                      30. Half of 10 =
                                             50. Half of 8 =
11. Half of 14 =
                      31. Half of 10 =
                                             51. Half of 2.0 =
12. Half of 2 = ...
                      32. Half of 18 =
                                             52. Half of 16 =
13. Half of 8 = ____
                      33. Half of 4 = 
                                             53. Half of 12 =
14. Half of 6 = ...
                      34. Half of 2 = 1
                                             54. Half of 2.0 =
15. Half of 16 =
                      35. Half of 6 = ...
                                             55. Half of 12 =
16. Half of 8 = 
                      36. Half of 18 =
                                             56. Half of 4 = 
17. Half of 10 =
                      37. Half of 14 =
                                             57. Half of 16 =
18. Half of 4 =
                      38. Half of 12 =
                                             58. Half of 20 =
19. Half of 18 =
                      39. Half of 14 =
                                             59. Half of 2 =
20. Half of 10 =
                      40. Half of 6 =
                                             60. Half of 8 =
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For further games and activities, visit:

Halving Numbers



Year 4 – 4B

I know number bonds for all numbers to 20.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

2 + 9 = 11	5 + 9 = 14	Example of a fact family
3 + 8 = 11	6 + 8 = 14	6 + 9 = 15
4 + 7 = 11	7 + 7 = 14	9 + 6 = 15
5 + 6 = 11	6 + 9 = 15	15 - 9 = 6
3 + 9 = 12	7 + 8 = 15	15 - 9 = 6
4 + 8 = 12	7 + 9 = 16	
5 + 7 = 12	8 + 8 = 16	Examples of other facts
6 + 6 = 12	8 + 9 = 17	4 + 5 = 9
4 + 9 = 13	9 + 9 = 18	13 + 5 = 18
5 + 8 = 13	3 3 10	19 - 7 = 12
6 + 7 = 13		10 - 6 = 4
U T / - 13		

Key Vocabulary

What do I add to 5 to make 19?

What is 17 take away 6?

What is 13 less than 15?

How many more than 8 is 11?

What is the **difference** between 9 and 13?

This list includes the most challenging facts but children will need to learn **all** number bonds for each number to 20 (e.g. 15 + 2 = 17). This includes related subtraction facts (e.g. 17 - 2 = 15).

Top Tips

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these key fcats 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.

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?

<u>Use doubles and near doubles</u> – If you know that 6 + 6 = 12, how can you work out 6 + 7? What about 5 + 7?

<u>Play games</u> – There are missing number questions at <u>www.conkermaths.com</u> . See how many questions you can answer in just one minute.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

• Complete the following. Use the number line to help if you need it.

1. 4 + 15 =	21. 2 + 7 =	41. 11 + 5 =
2. 13 + 5 =	22. 6 + 7 =	42. 8 + 11 =
3. 3 + 8 =	23. 6 + 13 =	43. 15 + 4 =
4. 7 + 6 =	25. 5 + 15 =	44. 6 + 8 =
5. 2 + 15 =	25. 2 + 6 =	45. 9 + 3 =
6. 8 + 5 =	26. 9 + 5 =	46. 5 + 4 =
7. 5 + 10 =	27. 8 + 3 =	47. 3 + 5 =
8. 7 + 3 =	28. 3 + 7 =	48. 11 + 6 =
9. 12 + 5 =	29. 12 + 7 =	49. 10 + 7 =
10. 8 + 2 =	30. 10 + 8 =	50. 4 + 11 =
11. 7 + 8 =	31. 7 + 2 =	51. 5 + 11 =
12. 8 + 6 =	32. 4 + 6 =	52. 1 4 + 2 =
13. 7 + 4 =	33. 17 + 3 =	53. 5 + 9 =
14. 4 + 12 =	34. 4 + 14 =	54. 8 + 9 =
15. 10 + 5 =	35. 5 + 3 =	55. 6 + 4 =
16. 7 + 9 =	36. 3 + 4 =	56. 8 + 7 =
17. 9 + 11 =	37. 12 + 4 =	57. 4 + 2 =
18. 11 + 9 =	38. 5 + 13 =	58. 13 + 2 =
19. 14 + 6 =	39. 4 + 9 =	59. 12 + 3 =
20. 6 + 6 =	40. 2 + 5 =	60. 4 + 4 =

Number bonds to 20

+	0	1	2	3	4	5	6	7	8	9	10
0	0+0	0+1	0+2	0+3	0 + 4	0+5	0+6	0 + 7	0+8	0+9	0 + 10
1	1+0	1+1	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9	1 + 10
2	2+0	2+1	2 + 2	2+3	2 + 4	2+5	2 + 6	2+7	2+8	2+9	2 + 10
3	3+0	3+1	3+2	3+3	3+4	3+5	3+6	3 + 7	3 + 8	3 + 9	3 + 10
4	4+0	4+1	4+2	4+3	4 + 4	4+5	4 + 6	4 + 7	4 + 8	4 + 9	4 + 10
5	5+0	5+1	5 + 2	5 + 3	5+4	5+5	5 + 6	5 + 7	5 + 8	5 + 9	5 + 10
6	6+0	6+1	6+2	6+3	6 + 4	6+5	6 + 6	6 + 7	6 + 8	6 + 9	6 + 10
7	7+0	7+1	7+2	7 + 3	7 + 4	7+5	7 + 6	7 + 7	7 + 8	7 + 9	7 + 10
8	8+0	8 + 1	8 + 2	8+3	8 + 4	8+5	8 + 6	8 + 7	8+8	8+9	8 + 10
9	9+0	9+1	9+2	9+3	9+4	9+5	9+6	9+7	9+8	9+9	9 + 10
10	10 + 0	10 + 1	10 + 2	10 + 3	10 + 4	10 + 5	10 + 6	10 + 7	10 + 8	10 + 9	10 + 10

Strategies

Adding I and 2

Doubles

Near doubles

Adding 10

Bridging/ compensating

Adding 0

Bonds to 10



Year 4 – 4C

I know the multiplication and division facts for the 4 times table.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

$4 \times 1 = 4$	$1 \times 4 = 4$	4 ÷ 4 = 1	$4 \div 1 = 4$
$4 \times 2 = 8$	$2 \times 4 = 8$	8 ÷ 4 = 2	$8 \div 2 = 4$
$4 \times 3 = 12$	$3 \times 4 = 12$	$12 \div 4 = 3$	$12 \div 3 = 4$
$4 \times 4 = 16$	4 × 4 = 16	16 ÷ 4 = 4	$16 \div 4 = 4$
$4 \times 5 = 20$	$5\times 4=20$	$20 \div 4 = 5$	$20 \div 5 = 4$
$4 \times 6 = 24$	$6 \times 4 = 24$	$24 \div 4 = 6$	$24 \div 6 = 4$
$4 \times 7 = 28$	$7\times 4=28$	$28 \div 4 = 7$	$28 \div 7 = 4$
$4 \times 8 = 32$	$8 \times 4 = 32$	$32 \div 4 = 8$	$32 \div 8 = 4$
$4 \times 9 = 36$	$9 \times 4 = 36$	$36 \div 4 = 9$	$36 \div 9 = 4$
$4 \times 10 = 40$	$10 \times 4 = 40$	$40 \div 4 = 10$	$40 \div 10 = 4$
4 × 11 = 44	$11 \times 4 = 44$	44 ÷ 4 = 11	44 ÷ = 4
$4 \times 12 = 48$	$12 \times 4 = 48$	48 ÷ 4 = 12	48 ÷ 12 = 4

Key Vocabulary

What is 4 multiplied by 6?

What is 8 times 4?

What is 24 divided by 4?

They should be able to answer these questions in any order, including missing number questions e.g. $4 \times \bigcirc = 16$ or $\bigcirc \div 4 = 7$.

Top Tips

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

What do you already know? – Your child will already know many of these facts from the 2, 3, 5 and 10 times tables.

<u>Double and double again</u> – Multiplying a number by 4 is the same as doubling and doubling again. Double 6 is 12 and double 12 is 24, so $6 \times 4 = 24$.

<u>Fact families</u>— If your child knows one fact (e.g. $12 \times 4 = 48$), can they tell you the other three facts in the same fact family?

Multiplication by 4 Practice Fact Family Arrays

	==		
2 x 4 = 8	4 x 2 = 8		
$8 \div 4 = 2$	$8 \div 2 = 4$		

See how quickly you can complete these facts.

1)	4 x 3	=	21)	1 x 4	=
2)	4 x 10	=	22)	4 x 6	=
3)	4 x 1	=	23)	4 x 4	=
4)	4 x 5	=	24)	10 x 4	=
5)	4 x 8	=	25)	4 x 3	=
6)	4 x 6	=	26)	8 x 4	=
7)	4 x 2	=	27)	4 x 7	=
8)	4 x 9	=	28)	4 x 5	=
9)	4 x 0	=	29)	9 x 4	=
10)	4 x 4	=	30)	2 x 4	=
11)	4 x 7	=	31)	4 x 8	=
12)	1 x 4	=	32)	6 x 4	=
13)	6 x 4	=	33)	4 x 10	=
14)	3 x 4	=	34)	4 x 1	=
15)	8 x 4	=	35)	7 x 4	=
16)	6 x 4	=	36)	4 x 9	=
17)	5 x 4	=	37)	3 x 4	=
18)	0 x 4	=	38)	5 x 4	=
19)	9 x 4	=	39)	4 x 0	=
20)	7 x 4	=	40)	4 x 4	=



Year 4 – 4D

I know the multiplication and division facts for the 8 times table.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

$8 \times 1 = 8$	$1 \times 8 = 8$	8 ÷ 8 = 1	8 ÷ I = 8
$8 \times 2 = 16$	$2 \times 8 = 16$	16 ÷ 8 = 2	$16 \div 2 = 8$
$8 \times 3 = 24$	$3 \times 8 = 24$	$24 \div 8 = 3$	$24 \div 3 = 8$
$8 \times 4 = 32$	$4 \times 8 = 32$	$32 \div 8 = 4$	$32 \div 4 = 8$
$8 \times 5 = 40$	$5 \times 8 = 40$	$40 \div 8 = 5$	$40 \div 5 = 8$
$8 \times 6 = 48$	$6 \times 8 = 48$	$48 \div 8 = 6$	$48 \div 6 = 8$
$8 \times 7 = 56$	$7 \times 8 = 56$	$56 \div 8 = 7$	$56 \div 7 = 8$
$8 \times 8 = 64$	$8 \times 8 = 64$	$64 \div 8 = 8$	$64 \div 8 = 8$
$8\times 9=72$	9 × 8 = 72	72 ÷ 8 = 9	$72 \div 9 = 8$
$8 \times 10 = 80$	$10 \times 8 = 80$	80 ÷ 8 = 10	80 ÷ 10 = 8
8 × 11 = 88	11 × 8 = 88	88 ÷ 8 = 11	88 ÷ 11 = 8
$8 \times 12 = 96$	$12 \times 8 = 96$	96 ÷ 8 = 12	96 ÷ 12 = 8

Key Vocabulary

What is 8 multiplied by 6?

What is 8 times 8?

What is 24 divided by 8?

They should be able to answer these questions in any order, including missing number questions e.g. $8 \times \bigcirc = 16$ or $\bigcirc \div 8 = 7$.

Top Tips

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

<u>Songs and Chants</u> – – Can you roll your numbers? "TMA, good as gold let me see your fingers roll the eights" You can also 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.

<u>Double your fours</u> – Multiplying a number by 8 is the same as multiply by 4 and then doubling the answer. $8 \times 4 = 32$ and double 32 is 64, so $8 \times 8 = 64$.

Five six seven eight – fifty-six is seven times eight ($56 = 7 \times 8$).

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

Mad Maths Minutes

Mad Maths Minutes

8x Table Division Facts Set A

8x Table Practice Set A

$$8 \times 7 =$$

$$48 \div 8 =$$

$$10 \times 8 =$$

$$4 \times 8 =$$

$$80 \div 8 =$$

$$8 \times 2 =$$

$$8 \times 6 =$$

$$32 \div 8 =$$

$$= 8 \times 0$$

$$8 \times 10 =$$

$$88 \div 8 =$$

$$8 \times 6 =$$

$$8 \times 8 =$$

$$8 \div 8 =$$

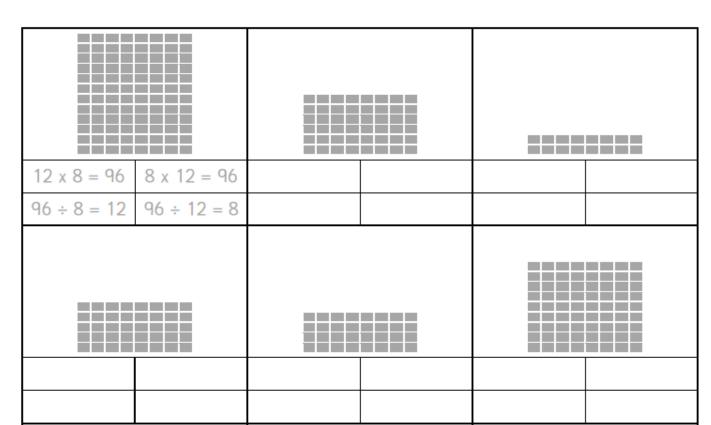
$$7 \times 8 =$$

$$8 \times 3 =$$

$$12 \times 8 =$$

$$3 \times 8 =$$

$$7 \times 8 =$$





Year 4 – 4E

I know the multiplication and division facts for the 3 times table.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

$3 \times 1 = 3$	$1 \times 3 = 3$	3 ÷ 3 = 1	$3 \div 1 = 3$
$3 \times 2 = 6$	$2 \times 3 = 6$	$6 \div 3 = 2$	$6 \div 2 = 3$
$3 \times 3 = 9$	$3 \times 3 = 9$	$9 \div 3 = 3$	$9 \div 3 = 3$
$3 \times 4 = 12$	$4 \times 3 = 12$	$12 \div 3 = 4$	$12 \div 4 = 3$
$3 \times 5 = 15$	$5 \times 3 = 15$	$15 \div 3 = 5$	$15 \div 5 = 3$
$3 \times 6 = 18$	$6 \times 3 = 18$	$18 \div 3 = 6$	$18 \div 6 = 3$
$3 \times 7 = 21$	$7 \times 3 = 21$	$21 \div 3 = 7$	$21 \div 7 = 3$
$3 \times 8 = 24$	$8 \times 3 = 24$	$24 \div 3 = 8$	$24 \div 8 = 3$
$3 \times 9 = 27$	$9\times 3=27$	$27 \div 3 = 9$	$27 \div 9 = 3$
$3 \times 10 = 30$	$10 \times 3 = 30$	$30 \div 3 = 10$	$30 \div 10 = 3$
3 × 11 = 33	$11 \times 3 = 33$	33 ÷ 3 = 11	33 ÷ 11 = 3
$3 \times 12 = 36$	$12 \times 3 = 36$	$36 \div 3 = 12$	36 ÷ 12 = 3

Key Vocabulary

What is 3 multiplied by 8?

What is 8 times 3?

What is 24 divided by 3?

They should be able to answer these questions in any order, including missing number questions e.g. $3 \times \bigcirc = 18$ or $\bigcirc \div 3 = 11$.

Top Tips

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

<u>Songs and Chants</u> – Can you roll your numbers? "TMA, good as gold let me see your fingers roll the threes" You can also 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.

<u>Fact families</u>— If your child knows one fact (e.g. $3 \times 5 = 15$), can they tell you the other three facts in the same fact family?

<u>Warning!</u> – 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. $3 \times 12 = 36$. The answer to the multiplication is 36, so $36 \div 3 = 12$ and $36 \div 12 = 3$

All these questions involve using the 3 times tables to work out these missing multiplication facts.

1) 3 x 6 = ____

16) 3 x ___ = 15

2) 5 x 3 = ___

17) ____x3 = 3

3) 3 x 0 =

18) $_{x3} = 0$

4) 8 x 3 =

19) 3 x ___ = 24

5) 3 x 7 = ____

20) ___x3 = 21

6) 3 x 3 = ____

21) ___ x 3 = 12

7) 4 x 3 = ____

22) 3 x ___ = 27

8) 9 x 3 = ____

23) 3 x ___ = 9

9) 3 x 8 = ____

24) ____ x 3 = 30

10) 2 x 3 = ____

25) 3 x ___ = 18

11) 3 x 8 = ____

26) ___x3 = 6

12) 7 x 3 = ____

27) 3 x ___ = 21

13) 3 x 1 =

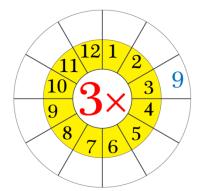
28) ____ x 3 = 27

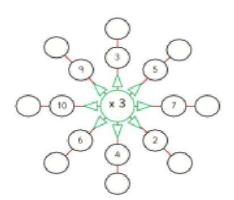
14) 6 x 3 =

29) 3 x ___ = 12

15) 3 x 9 = ____

 $30) _ x3 = 24$





For more multiplication practice go to:http://www.snappymaths.com/multdiv/multdiv.htm



Year 4 – 4F

I can recall facts about durations of time.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

Number of days in each month

There are 60 seconds in a minute.				
There are 60 minutes in an hour.	January	31	July	31
There are 24 hours in a day.	February	28/29	August	31
There are 7 days in a week.	March	31	September	30
There are 12 months in a year.	April	30	October	31
There are 365 days in a year.	May	31	November	30
• •	, June	30	December	31
There are 366 days in a leap year.				

Children also need to know the order of the months in a year. They should be able to apply these facts to answer questions, such as:

What day comes after 30th April?

What day comes before 1st February?

Top Tips

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

<u>Use rhymes and memory games</u>— The rhyme, *Thirty days hath September*, can help children remember which months have 30 days. There are poems describing the months of the year in order.

<u>Use calendars</u> – If you have a calendar for the new year, your child could be responsible for recording the birthdays of friends and family members in it. Your child could even make their own calendar.

<u>How long is a minute?</u> – Ask your child to sit with their eyes closed for exactly one minute while you time them. Can they guess the length of a minute? Carry out different activities for one minute. How many times can they jump in sixty seconds?

second	minute	hour	day	week
month	year	decade	century	

60 seconds = 1	60 minutes = 1
24 hours = 1	7 days = 1
12 months = 1	1 year = weeks (approx.)
1 year = days (normal)	1 year = days (lean year)

Thirty days hath September,
April, June, and November.
All the rest have thirty-one,
Excepting February alone,
And that has twenty-eight days clear,
And twenty-nine in each leap year.

Use the rhyme above to help you complete the following table...

Month	Number of Days
January	
February (not a leap year)	
February (in a leap year)	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	



Year 4 – 4G

I can tell the time.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

Children need to be able to tell the time using a clock with hands. This target can be broken down into several steps.

- I can tell the time to the nearest hour.
- I can tell the time to the nearest half hour.
- I can tell the time to the nearest quarter hour.
- I can tell the time to the nearest five minutes.
- I can tell the time to the nearest minute.

Key Vocabulary

Twelve o'clock

Half past two

Quarter past three

Quarter to nine

Five past one

Twenty-five to ten





Top Tips

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

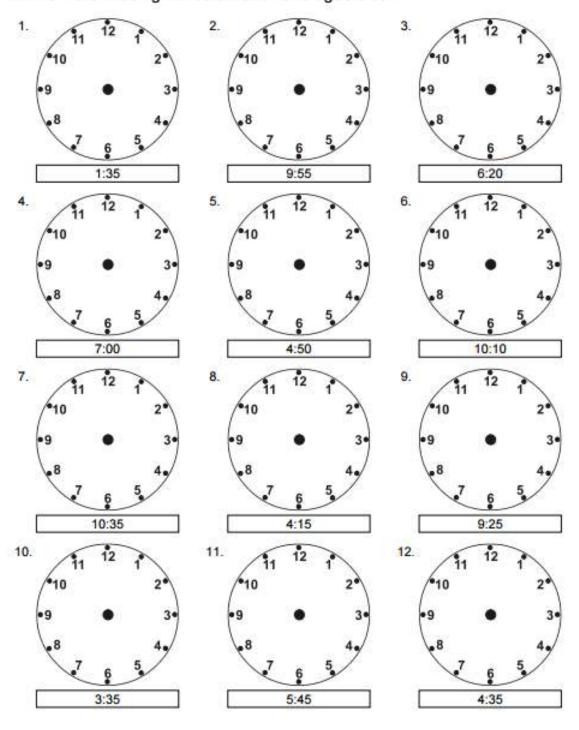
<u>Talk about time</u> - Discuss what time things happen. When does your child wake up? What time do they eat breakfast? Make sure that you have an analogue clock visible in your house or that your child wears a watch with hands. Once your child is confident telling the time, see if you can find more challenging clocks e.g. with Roman numerals or no numbers marked.

<u>Ask your child the time regularly</u> – You could also give your child some responsibility for watching the clock :

"The cakes need to come out of the oven at twenty-two minutes past four exactly."

"We need to leave the house at twenty-five to nine."

Draw the missing hands on each analogue clock...



For more practice go to:www.snappymaths.com/other/measuring/time/time.htm



Year 4 – 4H

I know number bonds to 100.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

Some examples:

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

<u>Fact families</u>- If your child knows one fact (e.g. 8 + 5 = 13), can they tell you the other three facts in the same fact family?

<u>Use number bonds to 10</u> - How can number bonds to 10 help you work out number bonds to 100?

<u>Play games</u> – There are missing number questions at <u>www.conkermaths.com</u>. See how many questions you can answer in just 90 seconds. There is also a number bond pair game to play.

Fill in the missing numbers to make 100.

Join the bonds: join up the number bonds that add up to make 100.

Circle the bonds: circle all the pairs of numbers that total 100.

27	56	81	42	7	93
73	19	64	58	25	60
14	76	24	36	40	71
19	86	39	11	23	29
52	48	89	66	17	3
26	52	34	21	83	97

See if you can find at least 10 pairs!

For more fun games see:

http://www.topmarks.co.uk/maths-games/hit-the-button



Year 4 – 41

I know the multiplication and division facts for the 6 times table.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

$6 \times 1 = 6$	$1 \times 6 = 6$	6 ÷ 6 = 1	6 ÷ I = 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 ÷ 6 = 10	60 ÷ 10 = 6
6 × 11 = 66	11 × 6 = 66	66 ÷ 6 = 11	66 ÷ 11 = 6
$6 \times 12 = 72$	$12 \times 6 = 72$	72 ÷ 6 = 12	72 ÷ 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 key 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.

<u>Songs and Chants</u> – Can you roll your numbers? "TMA, good as gold let me see your fingers roll the sixes" You can also 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.

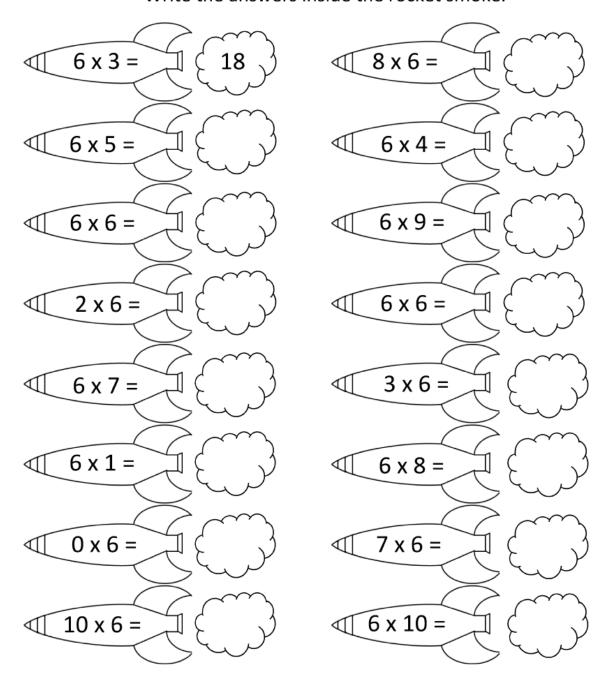
<u>Double your threes</u> – Multiplying a number by 6 is the same as multiplying by 3 and then doubling the answer. $7 \times 3 = 21$ and double 21 is 42, so $7 \times 6 = 42$.

<u>Fact families</u>— 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?

<u>Warning!</u> – 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 $72 \div 12 = 6$

Multiplication by 6 Practice

Write the answers inside the rocket smoke.



Mad Math	s Minutes	Mad Maths	Minutes	
Counting is	n 6s Set A	Counting in 6s Set B		
48, 54,	0, 6,	18, 24,	0, 6,	
30, 36,	30, 36,	24, 30,	18, 24,	
6, 12,	12, 18,	6, 12,	48, 54,	
24, 30,	48, 54,	30, 36,	6, 12,	
18, 24,	18, 24,	54, 60,	12, 18,	
0, 6,	60, 66,	36, 42,	36, 42,	
12, 18,	54, 60,	0, 6,	30, 36,	
60, 66,	6, 12,	60, 66,	24, 30,	
42, 48,	12, 18,	42, 48,	12, 18,	
6x Table Vis	and Set A	 6x Table Vi	sual Sat R	
OX Tuble Vis	aut Set /t		suut Set D	
		<u>::</u>		
	2		<u></u>	



Year 4 – 4J

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

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

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

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

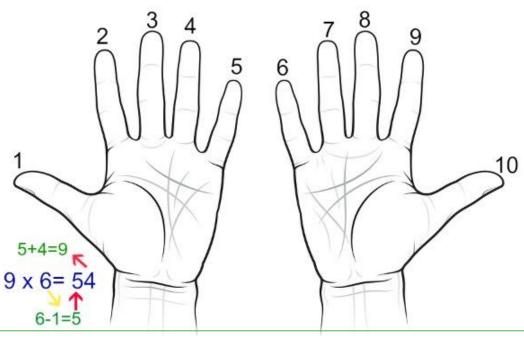
<u>Use your ten times table</u> – Multiply a number by 10 and subtract the original number (e.g. $7 \times 10 - 7 = 70 - 7 = 63$). What do you notice? What happens if you add your original number instead? (e.g. $7 \times 10 + 7 = 70 + 7 = 77$)

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!

All these questions involve using the 9 times tables to work out these missing multiplication facts.

	p	•				
1)	9 x 5	=	16)	x 9	=	90
2)	9 x 2	=	17)	x 9	=	45
3)	6 x 9	=	18)	9 x	=	27
4)	9 x 9	=	19)	9 x	=	0
5)	3 x 9	=	20)	9 x	=	63
6)	9 x 4	=	21)	x 9	=	54
7)	9 x 10	=	22)	x 9	=	72
8)	1 x 9	=	23)	9 x	=	36
9)	9 x 8	=	24)	x 9	=	18
10)	9 x 7	=	25)	x 9	=	81
11)	4 x 9	=	26)	9 x	=	90
12)	9 x 6	=	27)	9 x	=	54
13)	2 x 9	=	28)	x 9	=	9
14)	8 x 9	=	29)	9 x	=	72
15)	7 x 9	=	30)	x 9	=	36

Key question: what do you notice about the total of the digits in the answers to the nine times tables?

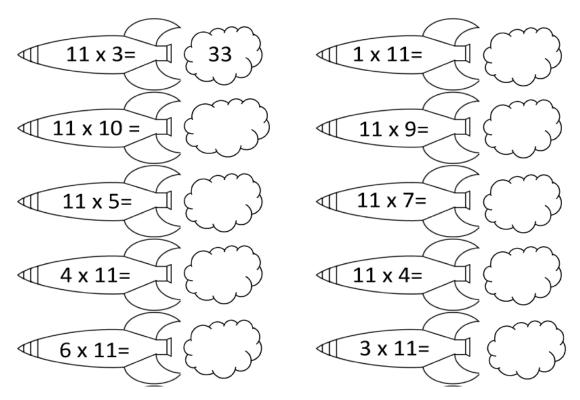


For more multiplication practice visit: http://www.snappymaths.com/multdiv/multdiv.htm

Multiplication by 9 Practice

1x9 =	8x9 =	6x9 =	11x9 =	5x9 =	12x9 =
4x9 =	1x9 =	10x9 =	5x9 =	2x9 =	8x9 =
6x9 =	9x9 =	7x9 =	11x9 =	3x9 =	12x9 =
1x9 =	4x9 =	10x9 =	5x9 =	2x9 =	3x9 =
9x9 =	11x9 =	8x9 =	7x9 =	12x9 =	6x9 =
9x9 =	4x9 =	5x9 =	10x9 =	8x9 =	1x9 =
11x9 =	6x9 =	2x9 =	3x9 =	12x9 =	7x9 =
9x9 =	5x9 =	10x9 =	8x9 =	2x9 =	4x9 =
12x9 =	1x9 =	3x9 =	7x9 =	11x9 =	6x9 =
7x9 =	4x9 =	3x9 =	9x9 =	10x9 =	2x9 =

Write the answers inside the rocket smoke.





Year 4 – 4K

I can recognise decimal equivalents of fractions.

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

$$\frac{1}{2} = 0.5 \qquad \frac{1}{10} = 0.1 \qquad \frac{1}{100} = 0.01$$

$$\frac{1}{4} = 0.25 \qquad \frac{2}{10} = 0.2 \qquad \frac{7}{100} = 0.07$$

$$\frac{3}{4} = 0.75 \qquad \frac{5}{10} = 0.5 \qquad \frac{21}{100} = 0.21$$

$$\frac{6}{10} = 0.6 \qquad \frac{75}{100} = 0.75$$

$$\frac{9}{10} = 0.9 \qquad \frac{99}{100} = 0.99$$

Key Vocabulary

How many **tenths** is 0.8?

How many **hundredths** is 0.12?

Write 0.75 as a fraction?

Write ¼ as a decimal?

Children should 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 key facts while walking to school or during a car journey? You don't need to practise them all at once: start with tenths before moving on to hundredths.

<u>Play games</u> - 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.

Decimal Equivalence Practice

• Write as decimals...

0.3	8 10	<u>2</u> 10
	6 10	5 10
9 10	<u>4</u> 10	7 10
0.09	8 100	6 100
4 100	5 100	2 100

Write fr	raction as decimal.
23	34
100	100
35	29
100	100
67	42
100	100
78	57
100	100
92	83
100	100
51	21
100	100
65	39
100	100
79	52
100	100
14	61 100
27	72
100	100
31	87
100	100

Decimal Equivalence Practice

	Shape	Fraction	Decimal
1.			
2.			
3.			
4.			
5.			
6.			

For more practice go to:-

http://www.topmarks.co.uk/maths-games/7-11-years/fractions-and-decimals



Year 4 – 4L

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

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

$7 \times 1 = 7$	$1 \times 7 = 7$	7 ÷ 7 = 1	7 ÷ I = 7
$7 \times 2 = 14$	$2 \times 7 = 14$	$14 \div 7 = 2$	$14 \div 2 = 7$
$7 \times 3 = 21$	$3 \times 7 = 21$	$21 \div 7 = 3$	$21 \div 3 = 7$
$7 \times 4 = 28$	$4\times7=28$	$28 \div 7 = 4$	$28 \div 4 = 7$
$7 \times 5 = 35$	$5 \times 7 = 35$	$35 \div 7 = 5$	$35 \div 5 = 7$
$7 \times 6 = 42$	$6 \times 7 = 42$	$42 \div 7 = 6$	$42 \div 6 = 7$
$7\times7=49$	$7\times7=49$	49 ÷ 7 = 7	$49 \div 7 = 7$
$7 \times 8 = 56$	$8 \times 7 = 56$	$56 \div 7 = 8$	$56 \div 8 = 7$
$7\times9=63$	$9 \times 7 = 63$	$63 \div 7 = 9$	$63 \div 9 = 7$
$7 \times 10 = 70$	$10 \times 7 = 70$	$70 \div 7 = 10$	70 ÷ 10 = 7
7 × 11 = 77	$11 \times 7 = 77$	77 ÷ 7 = 11	77 ÷ 11 = 7
$7 \times 12 = 84$	$12 \times 7 = 84$	84 ÷ 7 = 12	84 ÷ 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 key 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.

<u>Songs and Chants</u> – Can you roll your numbers? "TMA good as gold let me see your fingers roll the sevens" You can also 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.

<u>Order of difficulty</u> – 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.

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

Multiplication by 7 Practice

Circle the mult	iples of 7 Set A	Circle the multiples of 7 Set B				
49 15	70 83	34 35	16 7			
14 40	44 21	43 56	40 35			
38 35	35 29	84 54	68 49			
21 76	51 7	64 28	56 15			
37 84	14 61	42 57	14 61			
20 56	33 84	58 63	42 76			
70 26	63 54	21 22	70 18			
7 66	32 56	84 75	63 37			

9x7 =	11x7 =	8x7 =	7x7 =	12x7 =	6x7 =
9x7 =	4x7 =	5x7 =	10x7 =	8x7 =	1x7 =
11x7 =	6x7 =	2x7 =	3x7 =	12x7 =	7x7 =
9x7 =	5x7 =	10x7 =	8x7 =	2x7 =	4x7 =
12x7 =	1x7 =	3x7 =	7x7 =	11x7 =	6x7 =
7x7 =	4x7 =	3x7 =	9x7 =	10x7 =	2x7 =
1x7 =	8x7 =	6x7 =	11x7 =	5x7 =	12x7 =
4x7 =	1x7 =	10x7 =	5x7 =	2x7 =	8x7 =
6x7 =	9x7 =	7x7 =	11x7 =	3x7 =	12x7 =
1x7 =	4x7 =	10x7 =	5x7 =	2x7 =	3x7 =

Multiplication Table Tracker

Х	0	1	2	3	4	5	6	7	8	9	10	11	12
0													
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

Key

- √ recall instantly
- S uses a strategy
- target

For more multiplication practice go to:http://www.snappymaths.com/multdiv/ multdiv.htm



Year 4 – 4M

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

Children in Year 4 should know the following facts. The aim is for them to recall these facts **instantly**.

7 × 10 = 70	30 × 10 = 300	0.8 × 10 = 8
$10 \times 7 = 70$	$10 \times 30 = 300$	$10 \times 0.8 = 8$
$70 \div 7 = 10$	$300 \div 30 = 10$	$8 \div 0.8 = 10$
$70 \div 10 = 7$	$300 \div 10 = 30$	$8 \div 10 = 0.8$
$6 \times 100 = 600$	$40 \times 100 = 4000$	$0.2 \times 10 = 2$
$100 \times 6 = 600$	$100 \times 40 = 4000$	$10 \times 0.2 = 2$
$600 \div 6 = 100$	$4000 \div 40 = 100$	$2 \div 0.2 = 10$
$600 \div 100 = 6$	$4000 \div 100 = 40$	$2 \div 10 = 0.2$

What is 5 multiplied by 10? What is 10 times 0.9?

Key Vocabulary

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 key 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.

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

Multiplying and dividing by 10 and 100 Practice

0 1 2 3 4 5 6 7 8 9

Multiplying and Dividing by 10, 100 and 1000

Use your number cards and template worksheet to help you answer these questions:

- a) 7 X 10 =
- b) 13 X 10 =
- c) 5.43 X 10 =
- d) 34.1 X 100 =
- e) 32 X 100 =
- f) 1.234 X 100 =
- g) 3.2 X 1000 =
- h) 0.32 X 1000 =
- i) 0.001 X 1000 =
- j) 43 ÷ 10 =
- k) $432 \div 10 =$
- $0.2 \div 10 =$
- m) $432 \div 100 =$
- n) $121.3 \div 100 =$
- o) $0.2 \div 100 =$

- p) $3234 \div 1000 =$
- q) $433 \div 1000 =$
- r) $7 \div 1000 =$
- s) $0.003 \times 10 =$
- t) 32.003 X 100 =
- u) $399.9 \div 10 =$
- v) 3.333 X 1000 =
- w) 87230 ÷ 1000 =
- x) 0.203 X 100 =
- y) 0.001 X 10 000 =
- z) 132.345 ÷ 1000 =

Finished? Make up some of your own then solve them

For more practice visit:

http://www.greatmathsteachingideas.com/wp-content/uploads/2012/02/Multiplying-and-dividing-by-10-100-and-1000.pdf http://www.taw.org.uk/lic/itps/moving_digits_08.swf

· Complete the table...

Division	Visual	Fraction	Decimal
5 ÷ 100		<u>5</u> 100	0.05
6 ÷ 100			
2 ÷ 100			
3 ÷ 100			
4 ÷ 100			
1 + 100			
7 ÷ 100			
8 + 100			