

# Key Maths Facts – Year 6

Test your child on the following facts and make sure that they can recall them within 5 seconds.

- Multiplying and dividing by 10 and 100

To multiply by **10**, move **all** the digits **one** place to the **left**:

$$3 \times 10 = 30$$

$$4.7 \times 10 = 47$$

$$347 \times 10 = 3\,470$$

$$1\,204 \times 10 = 12\,040$$

To multiply by **100**, move **all** the digits **two** places to the **left**:

$$75 \times 100 = 7\,500$$

$$5.6 \times 100 = 560$$

$$306 \times 100 = 30\,600$$

$$7\,520 \times 100 = 752\,000$$

To divide by **10**, move **all** the digits **one** place to the **right**:

$$50 \div 10 = 5$$

$$470 \div 10 = 47$$

$$3700 \div 10 = 370$$

$$23 \div 10 = 2.3$$

To divide by **100**, move **all** the digits **two** places to the **right**:

$$300 \div 100 = 3$$

$$5800 \div 100 = 58$$

$$73\,400 \div 100 = 734$$

$$280 \div 100 = 2.8$$

# Key Maths Facts – Year 6

- Know your multiplication facts: Learn all your tables by heart.

L.O. To learn by heart x facts

<p style="text-align: center;"><b><u>3 x</u></b></p> $0 \times 3 = 0$ $1 \times 3 = 3$ $2 \times 3 = 6$ $3 \times 3 = 9$ $4 \times 3 = 12$ $5 \times 3 = 15$ $6 \times 3 = 18$ $7 \times 3 = 21$ $8 \times 3 = 24$ $9 \times 3 = 27$ $10 \times 3 = 30$ $11 \times 3 = 33$ $12 \times 3 = 36$	<p style="text-align: center;"><b><u>4 x</u></b></p> $0 \times 4 = 0$ $1 \times 4 = 4$ $2 \times 4 = 8$ $3 \times 4 = 12$ $4 \times 4 = 16$ $5 \times 4 = 20$ $6 \times 4 = 24$ $7 \times 4 = 28$ $8 \times 4 = 32$ $9 \times 4 = 36$ $10 \times 4 = 40$ $11 \times 4 = 44$ $12 \times 4 = 48$
<p style="text-align: center;"><b><u>6 x</u></b></p> $0 \times 6 = 0$ $1 \times 6 = 6$ $2 \times 6 = 12$ $3 \times 6 = 18$ $4 \times 6 = 24$ $5 \times 6 = 30$ $6 \times 6 = 36$ $7 \times 6 = 42$ $8 \times 6 = 48$ $9 \times 6 = 54$ $10 \times 6 = 60$ $11 \times 6 = 66$ $12 \times 6 = 72$	<p style="text-align: center;"><b><u>7 x</u></b></p> $0 \times 7 = 0$ $1 \times 7 = 7$ $2 \times 7 = 14$ $3 \times 7 = 21$ $4 \times 7 = 28$ $5 \times 7 = 35$ $6 \times 7 = 42$ $7 \times 7 = 49$ $8 \times 7 = 56$ $9 \times 7 = 63$ $10 \times 7 = 70$ $11 \times 7 = 77$ $12 \times 7 = 84$
<p style="text-align: center;"><b><u>8 x</u></b></p> $0 \times 8 = 0$ $1 \times 8 = 8$ $2 \times 8 = 16$ $3 \times 8 = 24$ $4 \times 8 = 32$ $5 \times 8 = 40$ $6 \times 8 = 48$ $7 \times 8 = 56$ $8 \times 8 = 64$ $9 \times 8 = 72$ $10 \times 8 = 80$ $11 \times 8 = 88$ $12 \times 8 = 96$	<p style="text-align: center;"><b><u>9 x</u></b></p> $0 \times 9 = 0$ $1 \times 9 = 9$ $2 \times 9 = 18$ $3 \times 9 = 27$ $4 \times 9 = 36$ $5 \times 9 = 45$ $6 \times 9 = 54$ $7 \times 9 = 63$ $8 \times 9 = 72$ $9 \times 9 = 81$ $10 \times 9 = 90$ $11 \times 9 = 99$ $12 \times 9 = 108$

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<u>11 x</u>	<u>12 x</u>
$0 \times 11 = 0$	$0 \times 12 = 0$
$1 \times 11 = 11$	$1 \times 12 = 12$
$2 \times 11 = 22$	$2 \times 12 = 24$
$3 \times 11 = 33$	$3 \times 12 = 36$
$4 \times 11 = 44$	$4 \times 12 = 48$
$5 \times 11 = 55$	$5 \times 12 = 60$
$6 \times 11 = 66$	$6 \times 12 = 72$
$7 \times 11 = 77$	$7 \times 12 = 84$
$8 \times 11 = 88$	$8 \times 12 = 96$
$9 \times 11 = 99$	$9 \times 12 = 108$
$10 \times 11 = 110$	$10 \times 12 = 120$
$11 \times 11 = 121$	$11 \times 12 = 132$
$12 \times 11 = 132$	$12 \times 12 = 144$

- **Special Numbers**

**Prime Numbers** : Are numbers that are only divisible by 1 and itself:

2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97 . ...

**Square Numbers** : When a number is multiplied by itself, the answer is a square number:

$1 \times 1 = 1$   
 $2 \times 2 = 4$   
 $3 \times 3 = 9$   
 $4 \times 4 = 16$   
 $5 \times 5 = 25$   
 $6 \times 6 = 36$   
 $7 \times 7 = 49$   
 $8 \times 8 = 64$   
 $9 \times 9 = 81$   
 $10 \times 10 = 100$   
 $11 \times 11 = 121$   
 $12 \times 12 = 144$

1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225 are examples of square numbers.

**Cube Numbers**: When a number is multiplied by itself three times, the answer is a cube number:

$1 \times 1 \times 1 = 1$   
 $2 \times 2 \times 2 = 8$   
 $3 \times 3 \times 3 = 27$   
 $4 \times 4 \times 4 = 64$   
 $5 \times 5 \times 5 = 125$   
 $6 \times 6 \times 6 = 216$   
 $7 \times 7 \times 7 = 343$

1, 8, 27, 64, 125, 216, 343, 512, 729, 1000 are all examples of cube numbers.

# Key Maths Facts – Year 6

- Doubles and halves of all numbers to 100.

## Doubles and Halves to 20

- Double 1 = 2            Half of 1 is 0.5
- Double 3 = 6            Half of 3 is 1.5
- Double 5 = 10           Half of 5 is 2.5
- Double 7 = 14           Half of 7 is 3.5
- Double 9 = 18           Half of 9 is 4.5
- Double 11 = 22           Half of 11 is 5.5
- Double 13 = 26           Half of 13 is 6.5
- Double 15 = 30           Half of 15 is 7.5
- Double 17 = 34           Half of 17 is 8.5
- Double 18 = 36           Half of 18 is 9
- Double 19 = 38           Half of 19 is 9.5
- Double 21 = 42           Half of 21 is 10.5

- Equivalent fractions, decimals and percentages

L.O. To learn equivalent fractions, decimals and percentages by heart.

Fraction	Decimal	Percentage
1/10	0.1	10%
2/10	0.2	20%
1/5	0.2	20%
1/2	0.5	50%
5/10	0.5	50%
1/4	0.25	25%
2/3	0.666	66%
4/5	0.8	80%
7/10	0.7	70%
9/10	0.9	90%
2/5	0.4	40%
1/3	0.333	33%
3/5	0.6	60%

# Key Maths Facts – Year 6

- Measures

Length	Mass (Weight)	Capacity	Time
10 mm = 1 cm 100 cm = 1 m 1 000 m = 1 km	1 000 g = 1 kg	1000 ml = 1 l	1 min = 60 secs 1 hour = 60 mins 1 day = 24 hrs 1 week = 7 days 1 year = 12 months 1 year = 365 days 1 leap year = 366 days 1 decade = 10 years 1 century = 100 years 1 millennium = 1 000 years

- The 24-hour clock

Remember this rhyme:

*30 days has September,  
April, June and November.  
All the rest have 31,  
except in February alone  
which has but 28 days clear  
and 29 in each leap year.*

- Learn your number bonds to 10, 20 and 100 by heart.

$0 + 10 = 10$

$1 + 9 = 10$

$2 + 8 = 10$

$3 + 7 = 10$

$4 + 6 = 10$

$5 + 5 = 10$

$6 + 4 = 10$

$7 + 3 = 10$

$8 + 2 = 10$

$9 + 1 = 10$

$10 + 0 = 10$

$0 + 20 = 20$

$1 + 19 = 20$

$2 + 18 = 20$

$3 + 17 = 20$

$4 + 16 = 20$

$5 + 15 = 20$

$6 + 14 = 20$

$7 + 13 = 20$

$8 + 12 = 20$

$9 + 11 = 20$

$10 + 10 = 20$

$11 + 9 = 20$

$12 + 8 = 20$

$13 + 7 = 20$

$14 + 6 = 20$

$15 + 5 = 20$

$16 + 4 = 20$

$17 + 3 = 20$

$18 + 2 = 20$

$19 + 1 = 20$

$20 + 0 = 20$

$0 + 100 = 100$

$10 + 90 = 100$

$20 + 80 = 100$

$30 + 70 = 100$

$40 + 60 = 100$

$50 + 50 = 100$

$60 + 40 = 100$

$70 + 30 = 100$

$80 + 20 = 100$

$90 + 10 = 100$

$100 + 0 = 100$

# Key Maths Facts – Year 6

## Roman Numerals Chart

						M=1000			D = 500	
<b>I</b>	1	<b>XXXII</b>	32			<b>LXIII</b>	63		<b>XCIV</b>	94
<b>II</b>	2	<b>XXXIII</b>	33			<b>LXIV</b>	64		<b>XCV</b>	95
<b>III</b>	3	<b>XXXIV</b>	34			<b>LXV</b>	65		<b>XCVI</b>	96
<b>IV</b>	4	<b>XXXV</b>	35			<b>LXVI</b>	66		<b>XCVII</b>	97
<b>V</b>	5	<b>XXXVI</b>	36			<b>LXVII</b>	67		<b>XCVIII</b>	98
<b>VI</b>	6	<b>XXXVII</b>	37			<b>LXVIII</b>	68		<b>XCIX</b>	99
<b>VII</b>	7	<b>XXXVIII</b>	38			<b>LXIX</b>	69		<b>C</b>	100
<b>VIII</b>	8	<b>XXXIX</b>	39			<b>LXX</b>	70			
<b>IX</b>	9	<b>XL</b>	40			<b>LXXI</b>	71		EX.	
<b>X</b>	10	<b>XLI</b>	41			<b>LXXII</b>	72		<b>DI</b>	501
<b>XI</b>	11	<b>XLII</b>	42			<b>LXXIII</b>	73		<b>DL</b>	550
<b>XII</b>	12	<b>XLIII</b>	43			<b>LXXIV</b>	74		<b>DXXX</b>	530
<b>XIII</b>	13	<b>XLIV</b>	44			<b>LXXV</b>	75		<b>DCCVII</b>	707
<b>XIV</b>	14	<b>XLV</b>	45			<b>LXXVI</b>	76		<b>DCCCXC</b>	890
<b>XV</b>	15	<b>XLVI</b>	46			<b>LXXVII</b>	77		<b>MD</b>	1500
<b>XVI</b>	16	<b>XLVII</b>	47			<b>LXXVIII</b>	78		<b>MDCCC</b>	1800
<b>XVII</b>	17	<b>XLVIII</b>	48			<b>LXXIX</b>	79		<b>CM</b>	900
<b>XVIII</b>	18	<b>XLIX</b>	49			<b>LXXX</b>	80			
<b>XIX</b>	19	<b>L</b>	50			<b>LXXXI</b>	81			
<b>XX</b>	20	<b>LI</b>	51			<b>LXXXII</b>	82			

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<b>XXI</b>	21		<b>LII</b>	52		<b>LXXXIII</b>	83			
<b>XXII</b>	22		<b>LIII</b>	53		<b>LXXXIV</b>	84			
<b>XXIII</b>	23		<b>LIV</b>	54		<b>LXXXV</b>	85			
<b>XXIV</b>	24		<b>LV</b>	55		<b>LXXXVI</b>	86			
<b>XXV</b>	25		<b>LVI</b>	56		<b>LXXXVII</b>	87			
<b>XXVI</b>	26		<b>LVII</b>	57		<b>LXXXVIII</b>	88			
<b>XXVII</b>	27		<b>LVIII</b>	58		<b>LXXXIX</b>	89			
<b>XXVIII</b>	28		<b>LIX</b>	59		<b>XC</b>	90			
<b>XXIX</b>	29		<b>LX</b>	60		<b>XCI</b>	91			
<b>XXX</b>	30		<b>LXI</b>	61		<b>XCII</b>	92			
<b>XXXI</b>	31		<b>LXII</b>	62		<b>XCIII</b>	93			