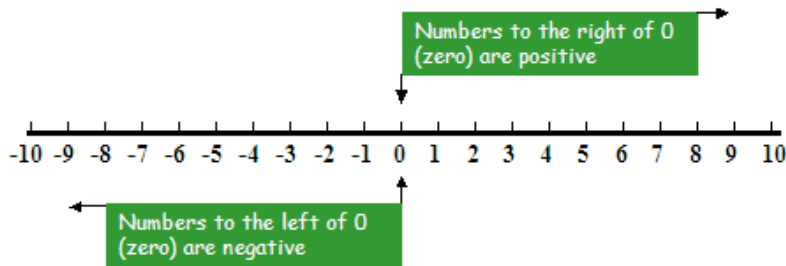
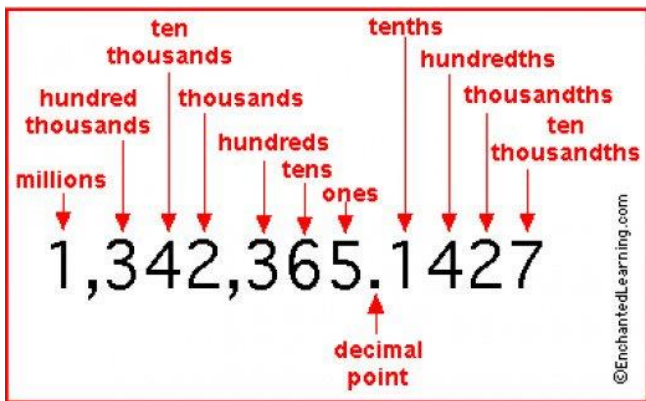


Year 6 Autumn Term



You can practice answering word problems involving negative numbers.

You can also practice using negative numbers on a thermometer.



Children need to know the value of each digit in a number, this will help them to be able to round numbers to the required degree of accuracy.

7,891 → 7,900
 15,753 → 15,800
 99,961 → 100,000
 3,350 → 3,300
 450 → 500

ARABIC NUMERAL	ROMAN NUMERAL	ARABIC NUMERAL	ROMAN NUMERAL
1	I	20	XX
2	II	30	XXX
3	III	40	XL
4	IV	50	L
5	V	60	LX
6	VI	70	LXX
7	VII	80	LXXX
8	VIII	90	XC
9	IX	100	C
10	X	500	D
		1000	M

$$\begin{array}{r} 6372 \\ + 3226 \\ \hline 9598 \end{array}$$

When adding or subtracting using the column method remember to always start with the units.

- Order of Operations
- B** Brackets
 - I** Indices
 - D** Division
 - M** Multiplication
 - A** Addition
 - S** Subtraction

Example of BIDMAS:

$$2 + 3 \times 4$$

Step 1: $3 \times 4 = 12$
 Step 2: $12 + 2 = 14$

$$5 + 3^2 - 6 \times 4$$

$$= 5 + 9 - 6 \times 4$$

$$= 5 + 9 - 24$$

$$= 14 - 24$$

$$= -10$$

Multiplying and Dividing by 10, 100 and 1000

10 000	1000	100	10	1	•	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
					•			

Multiplying

- X 10 digits move LEFT 1 space
- X 100 digits move LEFT 2 spaces
- X 1000 digits move LEFT 3 spaces

Dividing

- ÷ 10 digits move RIGHT 1 space
- ÷ 100 digits move RIGHT 2 spaces
- ÷ 1000 digits move RIGHT 3 spaces

Factors are numbers we can multiply together to get another number:
 Example: 2 and 3 are factors of 6, because $2 \times 3 = 6$.

Multiple: The answer to a digit multiplied by another digit
 Examples: 12 is a multiple of 3, as $3 \times 4 = 12$

PRIME NUMBERS

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

A **Prime number** can be divided evenly only by 1 or itself. It must be a whole number greater than 1.

A **Prime factor** is a factor that is a prime number. Eg. The prime factors of 15 are 3 and 5.

The **area** of a shape measures the space inside. The area of a surface.

The **perimeter** of a shape measures the space around the outside.

A square number is a number multiplied by itself. Eg. $2^2 = 2 \times 2 = 4$

A cube number is a number multiplied by itself three times. $2^3 = 2 \times 2 \times 2 = 8$

Simplifying fractions

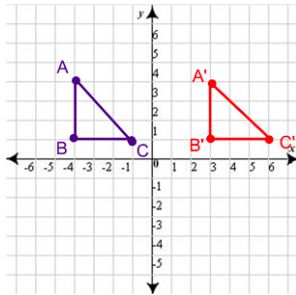
$$\frac{24}{40} \div 8 = \frac{3}{5}$$

7

$$\frac{1}{7} + \frac{4}{7} = \frac{5}{7}$$

$$\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$$

$$\frac{5}{7} \times \frac{2}{5} = \frac{10}{35} = \frac{2}{7}$$



Translation of a shape is moving every point of the shape the same distance (horizontally and vertically) in the same direction. Example above.

Fractions

Use common factors to simplify fractions, for example: both 24 and 40 are divisible by 8.

To compare fractions make all the denominators (bottom number of the fraction) the same by multiplying or dividing the fraction by a common number.

To add and subtract fractions the denominator (bottom number of the fraction) must be the same, the top numbers are then added or subtracted, the denominator remains the same.

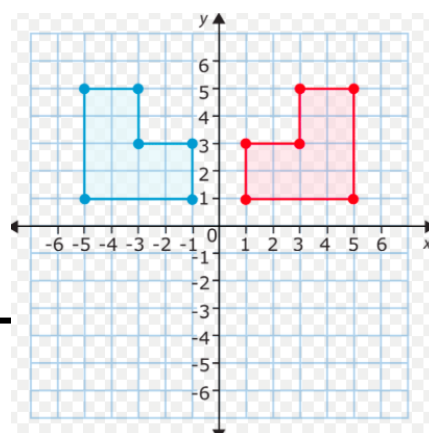
To multiply fractions, the numerators (top number of the fractions) and the denominators (bottom number of the fraction) are multiplied.

To divide a fraction by a whole number, make the whole number a fraction, then multiply the 2 fractions.

$$\frac{9}{17} \div 3 = \frac{9}{17} \div \frac{3}{1} = \frac{9}{17} \times \frac{1}{3} = \frac{9 \times 1}{17 \times 3}$$

$$= \frac{9}{51} = \frac{9 \div 3}{51 \div 3} = \frac{3}{17}$$

Reflection is when every point of the shape is reflected across a mirror line. The reflection is the same size and the same distance from the central line.



Fraction	Percent	Decimal
1	100%	1.0
1/2	50%	0.5
1/3	33.3%	0.33
1/4	25%	0.25
1/5	20%	0.2
1/6	16.6%	0.166
1/8	12.5%	0.125
1/10	10%	0.1
1/12	8.3%	0.083

These are some websites that could help your child:

Addition

<https://www.topmarks.co.uk/Flash.aspx?f=bingoaddition>

Subtraction

<https://www.topmarks.co.uk/maths-games/subtraction-grids>

Timetables and number bonds- Hit the Button

<https://www.topmarks.co.uk/maths-games/hit-the-button>

Timetables- Shooting bubbles

[http://www.mad4maths.com/4 x multiplication table math game/](http://www.mad4maths.com/4_x_multiplication_table_math_game/)

Timetables- Fishy timetables

<http://www.what2learn.com/home/examgames/maths/subtraction/>

Place Value- Place value chart

<https://www.topmarks.co.uk/>

Recognising numbers- Blast off

<https://www.topmarks.co.uk/learning-to-count/blast-off>

MyMaths.com

Login: whiteheathjs

Password: ten

The children have their own logins to access the portal.