

Maths, Year 5, Spring 1



What I will know by the end of the Autumn 1 term

Arithmetic 1	<p>I can write a division Maths Story as a fraction e.g. $7 \div 13 = 7/13$.</p> <p>I can say decimal equivalents for quarters, halves, tenths and hundredths.</p> <p>I can use equivalent fractions in calculations to add and subtract.</p> <p>I can use the four operations with combinations of positive and negative numbers.</p>
Geometry	<p>I can calculate the circumference of a circle using a calculator $C = \pi \times d$</p> <p>I can calculate the area of a circle using a calculator $A = \pi \times r^2$</p>
Data & Measure	<p>I can interpret calendars to find specific dates.</p> <p>I can interpret timetables to find information.</p> <p>I calculate the mode of a sample.</p>
Arithmetic 2	<p>I can write factors and proper factors of a number.</p> <p>I can compare numbers using $</>$ and \leq / \geq with whole integers.</p> <p>I can use divisibility tests for 2, 3, 4, 5, 6 and 10.</p>
Reasoning	I can solve problems involving measure and fractions.
Additional Coverage	<p>I can complete durations related Word Problems including mins, hours, days or months.</p> <p>I can compare numbers up to 100000 using $<$ and $>$</p> <p>I can multiply and divide by 15 and 20.</p>

Useful Links

<https://www.mymaths.co.uk/>
<https://play.ttrockstars.com/auth/school/student/64764>
<https://www.bbc.co.uk/teach/supermovers/ks2-maths-collection/z7frpg8>
<https://home.oxfordowl.co.uk/maths/primary-multiplication-division/help-with-times-tables/>

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

Multiplying and Dividing by 10, 100 and 1000

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
	$\div 10$	3	8	
3	8			
	$\times 10$		3	8

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
	$\div 100$	3	8	
3	8			
	$\times 100$		3	8

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
	$\div 1000$	3	8	
3	8			
	$\times 1000$		3	8

Compare and Order

equals	greater than	less than					
$26 + 38 = 8 \times 8$	$23\ 873 > 8256$	$901\ 198 < 1\ 091\ 098$					
Both calculations have the value 64.	The number on the left has 2 ten thousands and the number on the right has 0 ten thousands.	The number on the right has 1 million and the number on the left has 0 millions.					
smallest	898	6735	6835	7019	9002	11 235	greatest

Timetables

Here is a bus timetable:

Three different buses			
Bus stop locations	0726	0803	0842
Mill Road	0726	0803	0842
High Street	0729	0803	
Pitsmoor Road	0759	0833	
Fulwood	0845	0919	0946

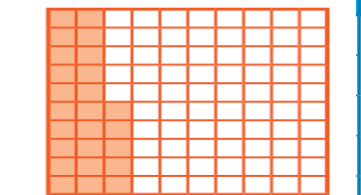
The bus starts at this time and location.

The bus does not stop here.

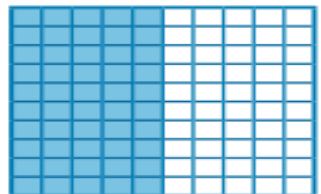
The bus terminates at this time and location.

Useful Vocabulary:

Decimal point/ place	A decimal point is a point, or dot, used to separate the whole part of a number from the fractional part.
Expression	A Maths Story with a minimum of two numbers and at least one maths operation (+, -, x, or ÷).
Denominator	The bottom number on a fraction.
Circumference	The perimeter of a circle.
Radius	The distance from the centre of a circle to the outer edge of a circle (half of the diameter).
Duration	The time during which something exists or lasts.
Mode	A value that occurs the most often. When finding the mode, it helps to order the numbers first.



$$25\% = \frac{25}{100} = \frac{1}{4} = 0.25$$



$$50\% = \frac{50}{100} = \frac{1}{2} = 0.5$$

Simplify Fractions

$$\frac{9}{12}$$

Factors of 9:
1, 3, 9

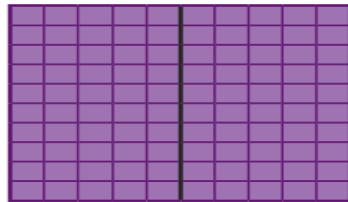
Factors of 12:
1, 2, 3, 4, 6, 12

$$\frac{9}{12} = \frac{3}{4}$$



Equivalent Fractions

To find equivalent fractions, we multiply or divide the numerator and denominator by the same number.



$$\frac{1}{2} = \frac{5}{10} = \frac{50}{100}$$

Mixed Numbers

Mixed numbers contain a whole number and a fraction.

whole $\rightarrow 2\frac{1}{4}$ \leftarrow fraction

Convert an Improper Fraction to a Mixed Number

$$\frac{9}{4}$$

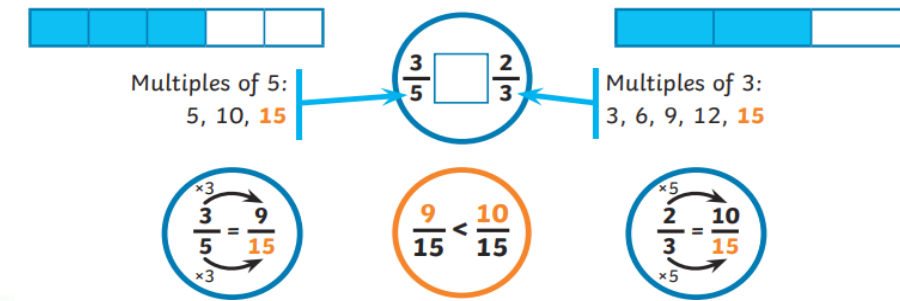
$$9 \div 4 = 2r1$$

$$2\frac{1}{4}$$

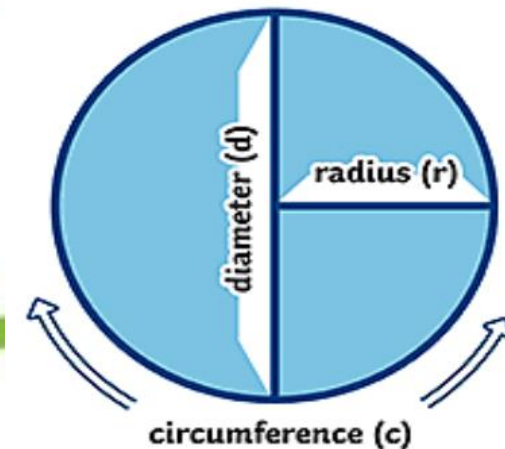
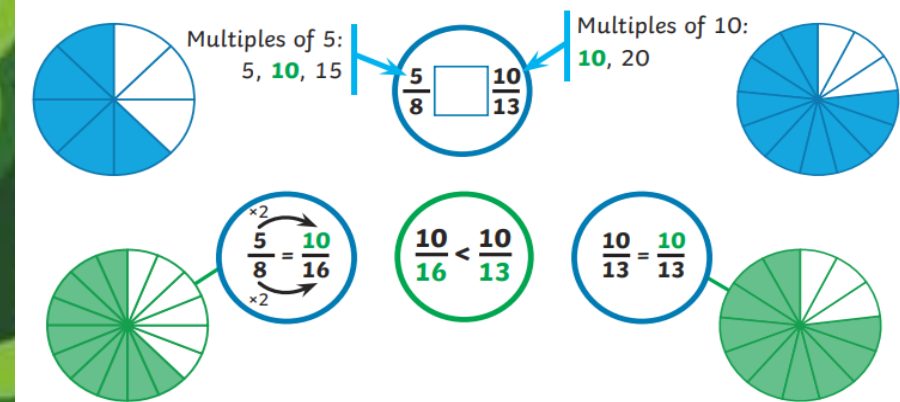
This shows you the whole number and the fraction.

Compare and Order Fractions

Use the Common Denominator



Use the Common Numerator



Area

The area of a circle = πr^2

Circumference

The circumference of a circle = $\pi d = 2\pi r$

Diameter

The diameter of a circle = $2r$

Pi (π)

π is a number which is approximately 3.14