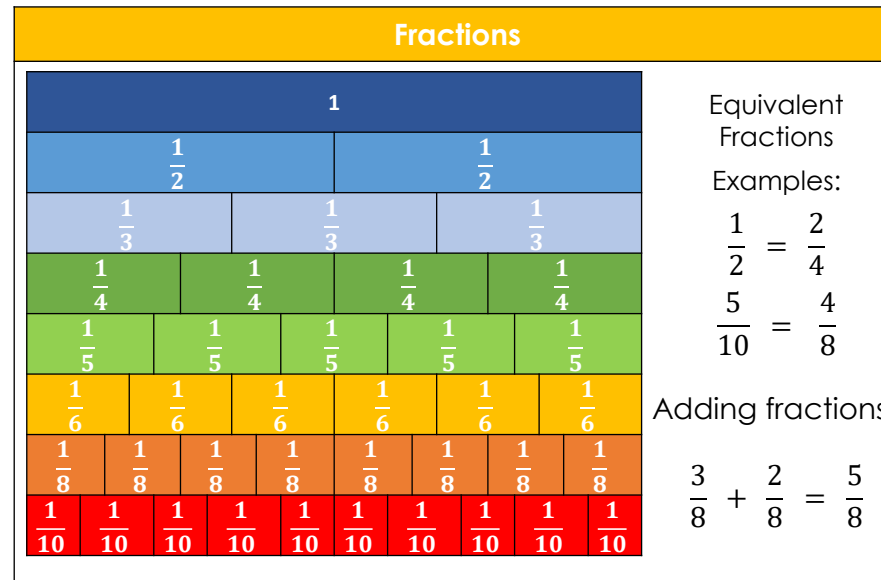


# Year 3: Maths Knowledge Mat

Counting from 0
Counting in <b>multiples of 4</b> 0, 4, 8, 12, 16, 20, 24, 28, 32...
Counting in <b>multiples of 8</b> 0, 8, 16, 24, 32, 40, 48...
Counting in <b>multiples of 50</b> 0, 50, 100, 150, 200, 250, 300...
Counting in <b>multiples of 100</b> 0, 100, 200, 300, 400, 500...

Vocabulary	
<b>100</b>	<b>hundred</b>
<b>1000</b>	<b>thousand</b>
<b>+</b> <b>-</b> <b>X</b> <b>÷</b>	<b>inverse operations</b>
$\frac{1}{2}$ ←	<b>Numerator</b>
$\frac{1}{2}$ ←	<b>Denominator</b>

Place value	Thousands	Hundreds	Tens	Ones		Tenths
1238	1	2	3	8	.	0
58.9	0	0	5	8	.	9
3050.4	3	0	5	0	.	4



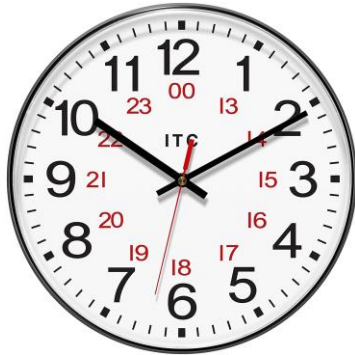
Multiplication Tables			
x	3	4	8
1	3	4	8
2	6	8	16
3	9	12	24
4	12	16	32
5	15	20	40
6	18	24	48
7	21	28	56
8	24	32	64
9	27	36	72
10	30	40	80
11	33	44	88
12	36	48	96

Formal methods of addition, subtraction and short multiplication and division				
768 + 653 becomes $\begin{array}{r} 768 \\ + 653 \\ \hline 1421 \\ 11 \end{array}$	862 - 514 becomes $\begin{array}{r} 862 \\ - 514 \\ \hline 348 \end{array}$	934 - 456 becomes $\begin{array}{r} 8121 \\ 934 \\ - 456 \\ \hline 478 \end{array}$	26 x 8 becomes $\begin{array}{r} 26 \\ \times 8 \\ \hline 208 \\ 4 \end{array}$	78 ÷ 6 becomes $\begin{array}{r} 13 \\ 6 \overline{) 78} \\ \underline{6} \phantom{0} \\ 18 \\ \underline{18} \\ 0 \end{array}$

# Year 3: Maths Knowledge Mat

## Time – Sticky Knowledge

### 24 hour clocks



The time is 10.10 in the morning or 22.10 in the evening in 24 hour time.

**a.m.** is from **midnight** until mid-day (noon)  
1 to 12 in 24 hour clock time

### Roman numerals



This clock is showing X to II or 10 to 2.

On some clocks the 4 is IIII and sometimes it is IV

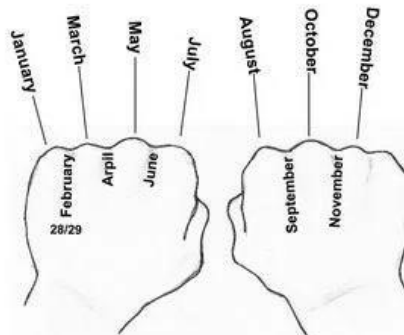
**p.m.** is from mid-day (**noon**) until midnight  
13 to 24 in 24 hour clock time

There are **365 days in a year.**

**A leap year has 366 days.** This is February 29<sup>th</sup> and happens every 4 years.

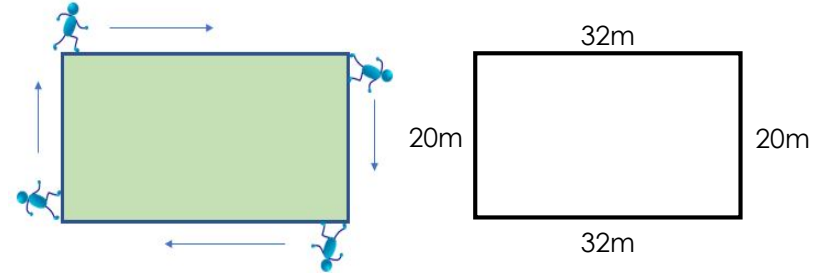
<b>January</b>	31 days
<b>February</b>	28 days
<b>March</b>	31 days
<b>April</b>	30 days
<b>May</b>	31 days
<b>June</b>	30 days
<b>July</b>	31 days
<b>August</b>	31 days
<b>September</b>	30 days
<b>October</b>	31 days
<b>November</b>	30 days
<b>December</b>	31 days

### 'Knuckle Mnemonic'



## Perimeter

Perimeter is the distance around a 2D shape



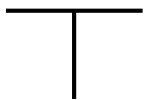
## Non symmetrical (irregular) polygons

Polygon/Shape	Regular	Irregular
Triangle		
Quadrilateral		
Pentagon		
Hexagon		
Heptagon		
Octagon		

## Lines

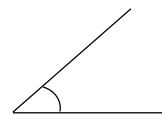


Parallel



Perpendicular

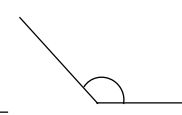
## Angles



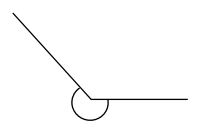
**Acute angle**  
Less than 90°



**Right angle**  
Exactly 90°



**Obtuse angle**  
More than 90°  
Less than 180°



**Reflex angle**  
More than 180°  
Less than 360°