

Year 5

Addition

$$\text{addend} + \text{addend} = \text{sum}$$

Column addition

$$51345 + 21392 =$$

72737 whole	
51345 part	21392 part

addend
+ addend
<hr/>
sum
<hr/>

Step 1

TTh	Th	H	T	O

$$\begin{array}{r} 51345 \\ + 21392 \\ \hline \end{array}$$

$$\begin{array}{r} 513.45 \\ + 213.92 \\ \hline \end{array}$$

Step 2

TTh	Th	H	T	O

$$\begin{array}{r} 51345 \\ + 21392 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 513.45 \\ + 213.92 \\ \hline 7 \end{array}$$

Push resources up



Step 3

TTh	Th	H	T	O
				↑

Push resources up

$$\begin{array}{r} 51345 \\ + 21392 \\ \hline 72737 \\ \hline 1 \end{array}$$

I can regroup
10 tens for
1 hundred.

$$\begin{array}{r} 513.45 \\ + 213.92 \\ \hline 727.37 \\ \hline 1 \end{array}$$

Step 4

TTh	Th	H	T	O
				↑

Push resources up

$$\begin{array}{r} 51345 \\ + 21392 \\ \hline 72737 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 513.45 \\ + 213.92 \\ \hline 727.37 \\ \hline 1 \end{array}$$

Year 5

Subtraction

$$\text{minuend} - \text{subtrahend} = \text{difference}$$

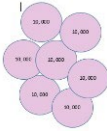



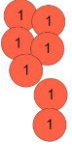
Column subtraction

$$72737 - 21392 =$$

72737 whole	
51345 part	21392 part

minuend
- subtrahend
<u>difference</u>

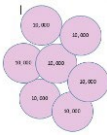


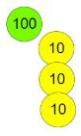


Step 1


TTh	Th	H	T	O
				

$$\begin{array}{r} 72737 \\ - 21392 \\ \hline \end{array}$$

$$\begin{array}{r} 727.37 \\ - 213.92 \\ \hline \end{array}$$

Step 2

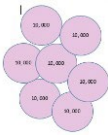


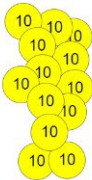


TTh	Th	H	T	O
				
				

Pull resources down 

$$\begin{array}{r} 72737 \\ - 21392 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 727.37 \\ - 213.92 \\ \hline 5 \end{array}$$

Step 3

TTh	Th	H	T	O
				
				

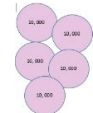


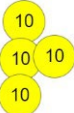




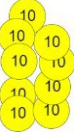

Pull resources down

I can regroup
1 hundred for
10 tens.

$$\begin{array}{r} 1 \\ 72737 \\ - 21392 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 1 \\ 727.37 \\ - 213.92 \\ \hline 5 \end{array}$$

Step 3

TTh	Th	H	T	O
				
				

Pull resources down

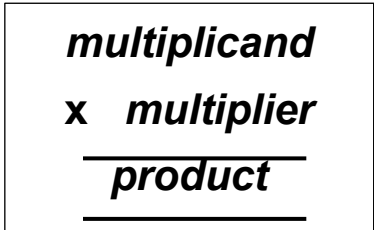
$$\begin{array}{r} 6 1 \\ 72737 \\ - 21392 \\ \hline 51345 \end{array}$$

$$\begin{array}{r} 6 1 \\ 727.37 \\ - 213.92 \\ \hline 513.45 \end{array}$$

Year 5
Multiplication
multiplier x multiplicand = product

Short multiplication

$$\begin{array}{r}
 1324 \\
 \times \quad \quad \quad 6 \\
 \hline
 7944 \\
 \hline
 112
 \end{array}$$



Grid method to long multiplication

	<table border="1" style="width: 100%; text-align: center;"> <tr> <td>x</td> <td>10</td> <td>4</td> </tr> <tr> <td>10</td> <td>100</td> <td>40</td> </tr> <tr> <td>3</td> <td>30</td> <td>12</td> </tr> </table>	x	10	4	10	100	40	3	30	12
x	10	4								
10	100	40								
3	30	12								
$ \begin{array}{r} 14 \\ \times 13 \\ \hline 12 \quad (3 \times 4) \\ 30 \quad (3 \times 10) \\ 40 \quad (10 \times 4) \\ 100 \quad (10 \times 10) \\ \hline 182 \end{array} $	$ \begin{array}{r} 14 \\ \times 13 \\ \hline 42 \\ \downarrow \\ 140 \\ \hline 182 \end{array} $									

Year 5

Division

$$\text{dividend} \div \text{divisor} = \text{quotient}$$

$$\text{divisor} \overline{) \text{dividend}} \quad \leftarrow \text{This is the division bracket.}$$

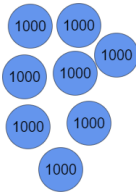

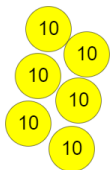
Short division

$$8560 \div 4 = 2140$$

Step 1

$$8560 \div 4 =$$

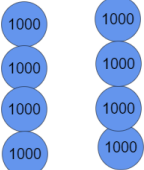

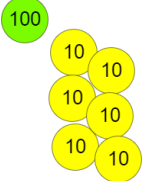
$$4 \overline{) 8560}$$

Th	H	T	O
			

Step 2

$$8560 \div 4 =$$

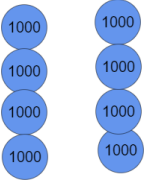

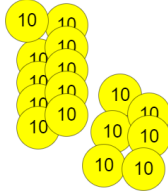
$$\begin{array}{r} 21 \\ 4 \overline{) 8560} \\ \underline{8} \\ 5 \\ \underline{4} \\ 1 \\ \underline{0} \\ 0 \\ \underline{0} \\ 0 \end{array}$$

Th	H	T	O
			<p>How many groups of 4 can I make with 8 thousands?</p> <p>How many groups of 4 can I make with 5 hundreds?</p>

Step 3

$$8560 \div 4 =$$

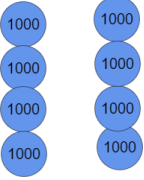

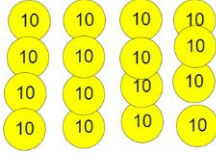
$$\begin{array}{r} 21 \\ 4 \overline{) 8560} \\ \underline{8} \\ 5 \\ \underline{4} \\ 16 \\ \underline{16} \\ 0 \end{array}$$

Th	H	T	O	
				<p><i>I can regroup 1 hundred for 10 tens.</i></p>

Step 4

$$8560 \div 4 =$$

$$\begin{array}{r} 2140 \\ 4 \overline{) 8560} \\ \underline{8} \\ 5 \\ \underline{4} \\ 16 \\ \underline{16} \\ 0 \end{array}$$

Th	H	T	O
			

$564 \div 5 = 112 \text{ r } 4$ $\begin{array}{r} 1 \quad 1 \quad 2 \quad \text{r}4 \\ 5 \overline{) 564} \\ \underline{5} \\ 6 \\ \underline{5} \\ 14 \\ \underline{10} \\ 4 \end{array}$	$564 \div 5 = 112.8$ $\begin{array}{r} 1 \quad 1 \quad 2 \quad . \quad 8 \\ 5 \overline{) 564.0} \\ \underline{5} \\ 6 \\ \underline{5} \\ 14 \\ \underline{10} \\ 40 \\ \underline{40} \\ 0 \end{array}$
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