Cedars
Primary School

Written Methods for Addition, Subtraction, Multiplication and Division

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Addition

1. Write the problem out.

```
  547
+ 534
─────
```

2. Start by adding the smallest value first.

```
  547
+ 534
─────
```

3. If answer is more than 10, put the units in the box and carry the tens under next column.

```
  547
+ 534
─────
    1
    1
```

4. Move to the next columns and repeat but don't forget to add your carries.

```
  547        547
+ 534      + 534
─────      ─────
    1         81
    1          1
```

5. Keep moving to the next column until you have finished the calculation.

```
  547
+ 534
─────
 1081
    1
```

So 547 + 534 = 1081

Subtraction	**Subtraction more than 1 exchange**
1. Write the problem out. $$\begin{array}{r} 542 \\ -\ 317 \\ \hline \end{array}$$ 2. Start by subtracting the smallest value first. $$\begin{array}{r} 54\boxed{2} \\ -\ 31\boxed{7} \\ \hline \end{array}$$ 3. If the top number is smaller than the bottom number, you need to exchange from the next column. $$\begin{array}{r} 5\!\!\!/2 \\ -\ 317 \\ \hline \end{array} \qquad \begin{array}{r} {}^{3}5\!\!\!/{}^{1}2 \\ -\ 317 \\ \hline 5 \end{array}$$ 4. Move to the next columns and repeat. $$\begin{array}{r} {}^{3}5\!\!\!/{}^{1}2 \\ -\ 317 \\ \hline 225 \end{array}$$ So 542 -317 = 225	1. Write the problem out. $$\begin{array}{r} 500 \\ -\ 367 \\ \hline \end{array}$$ 2. Start by subtracting the smallest value first. $$\begin{array}{r} 50\boxed{0} \\ -\ 36\boxed{7} \\ \hline \end{array}$$ 3. If you can't exchange from the next column, you need to move along the columns until you can exchange. $$\begin{array}{r} {}^{4}\,{}^{1}5\!\!\!/00 \\ -\ 367 \\ \hline \end{array} \qquad \begin{array}{r} {}^{4}\,{}^{9}\,{}^{1}5\!\!\!/\!\!\!/0 \\ -\ 367 \\ \hline 3 \end{array}$$ 4. Remember you have to go one column at a time. 5. Move to next column and subtract. $$\begin{array}{r} {}^{4}\,{}^{9}\,{}^{1}5\!\!\!/\!\!\!/0 \\ -\ 367 \\ \hline 133 \end{array}$$ So 500 – 367 = 133

Multiplication by 1 digit	**Multiplication 2 by 2 digit**
1. Write out the problem.	1. Write out the problem.
45	
x 9	
―――	
	45
	x 32
	―――
2. Multiply the units.	2. Multiply the top number by the bottom units (ignore the bottom tens).
4⑤	45 4⑤ ④5
x ⑨	x 32 x 3② x 3②
―――	0 90
	1 ✗
3. If answer is more than 10, put the units in the box and carry the tens under next column.	3. Put in a zero (because step 4 you are multiplying by 10).
4 5	
x 9	45
――⑤	x 32
④	90
	⓪
4. Multiply the next column by the units and don't forget to add your carry.	4. Multiply the top number by the bottom tens.
④5	45 ④5 ④5
x ⑨	x 32 x③2 x ③2
405	90 90 90
✗	0 50 1350
	1 ✗
So 45 x 9 = 405	
	5. Add the answers together.
	45
	x 32
	90
	+ 1350
	1440
	So 45 x 32 = 1440

Division by 1 digit	Division by 2 digit
1. Write out the problem $3402 \div 3 =$ $3\overline{\smash{\big)}3\,4\,0\,2}$	1. Write out the problem $2654 \div 13 =$ $13\overline{\smash{\big)}2\;6\;5\;4}$

Division by 1 digit

1. Write out the problem

$$3402 \div 3 =$$

$$3\,\overline{\smash{\big)}\,3\,4\,0\,2}$$

2. Write out jottings for the divisor (the number you are dividing by).
3 6 9 12 15 18 21 24 27 30 33

3. Start with the largest value.

4. How many times does the divisor go into this digit? (use your jottings) Write the answer above the bus stop.

$$\overset{1}{3\,\overline{\smash{\big)}\,3\,4\,0\,2}}$$

5. If the divisor doesn't fit exactly, carry any left over to the next column.

$$\overset{1\ 1}{3\,\overline{\smash{\big)}\,3\,4^{1}0\,2}}$$

6. Repeat for these steps for your new number.

$$\overset{1\ 1\ 3}{3\,\overline{\smash{\big)}\,3\,4\,{}^{1}0\,{}^{1}2}} \qquad \overset{1\ 1\ 3\ 4}{3\,\overline{\smash{\big)}\,3\,4\,{}^{1}0\,{}^{1}2}}$$

7. If there are no numbers left to carry to, write your number left over as a remainder.

Division by 2 digit

1. Write out the problem

$$2654 \div 13 =$$

$$13\,\overline{\smash{\big)}\,2\;6\;5\;4}$$

2. Write out jottings for the divisor (the number you are dividing by).

$$13 \times 10 = 130$$
$$13 \times 5 = 65$$
$$13 \times 1 = 13$$
$$13 \times 2 = 26$$
$$13 \times 4 = 52$$
$$13 \times 8 = 104$$

3. Start with the largest value. How many times does the divisor go into this digit? (use your jottings) Write the answer above the bus stop.

$$\overset{0}{13\,\overline{\smash{\big)}\,2^{2}6\;5\;4}}$$

If the divisor doesn't fit exactly, carry any left over to the next column.

4. Repeat for these steps for your new number.

$$\overset{0\ \ 2}{13\,\overline{\smash{\big)}\,2^{2}6\;5\;4}}$$

$$\overset{0\ \ 2\ \ 0}{13\,\overline{\smash{\big)}\,2^{2}6\;5^{5}4}}$$

$$\overset{0\ \ 2\ \ 0\ 4\ r\ 2}{13\,\overline{\smash{\big)}\,2^{2}6\;5^{5}4}}$$

5. Write your number left over as a remainder and express it as a fraction.

$$2654 \div 13 = 204\tfrac{2}{13}$$