





Steps to Success

Date	13.1.20
Subject/s	Maths
Learning Objective 	To add and subtract decimals

SA 	TA 
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Success Criteria 	I can identify the place value of numbers		
	I can line up the place value columns		
	I can use my knowledge of column addition and subtraction		
Support	Independent	Adult Support ()	Group Work

Lockdown learning: DC

Pre-task

- 1) $8.951 - 3.26$
- 2) $16.71 + 182.7$

Teacher led:

Fluency:

Teacher led

What addition/subtraction methods could I use?

In my head - $0.\underline{1} + 0.\underline{3}$

Questions with one decimal place.

Column method $16.71 + 182.7$

Questions with 2 or more decimal places.

DON'T FORGET

When using column method, you must line the numbers up correctly. Use a place value grid if needed.

$$\begin{array}{r}
 1) \quad 16.92 \\
 + \quad 5.16 \\
 \hline
 22.08 \\
 \hline
 11
 \end{array}$$

$$\begin{array}{r}
 2) \quad 6.729 \\
 + \quad 2.366 \\
 \hline
 9.095 \\
 \hline
 11
 \end{array}$$

$$\begin{array}{r}
 3) \quad 23.54 \\
 + \quad 18.21 \\
 \hline
 41.75 \\
 \hline
 1
 \end{array}$$

$$\begin{array}{r}
 4) \quad \overset{3}{4}6.\overset{8}{9}3 \\
 - \quad 19.26 \\
 \hline
 27.67
 \end{array}$$

$$\begin{array}{r}
 5) \quad \overset{0}{1}8.\overset{2}{3}6 \\
 - \quad 9.18 \\
 \hline
 09.18
 \end{array}$$

$$\begin{array}{r}
 6) \quad \overset{7}{8}0.57 \\
 - \quad 3.926 \\
 \hline
 4.131
 \end{array}$$

Always start on the digit to the right.

Exchange

$$\begin{array}{r}
 3.621 \\
 - \quad 1.239 \\
 \hline
 \end{array}$$

If I have 1,
I can't take
away 9.

If you are feeling confident with adding and subtracting decimals, have a go at this fluency:

B

Copy and complete.

1 9.581
 $+ 3.942$

6 37.85
 $+ 4.35$

2 13.96
 $+ 7.45$

7 82.39
 $+ 26.73$

3 6.493
 $+ 2.574$

8 4.768
 $+ 3.999$

4 5.257
 $+ 3.956$

9 9.645
 $+ 6.076$

5 28.87
 $+ 14.67$

10 6.569
 $+ 1.472$

B

Copy and complete.

1 29.35
 $- 16.72$

6 8.251
 $- 5.434$

2 7.573
 $- 3.748$

7 4.718
 $- 1.657$

3 92.82
 $- 19.36$

8 6.464
 $- 5.372$

4 5.066
 $- 3.954$

9 1.923
 $- 0.831$

5 34.17
 $- 27.97$

10 4.055
 $- 3.396$

If you need more help, complete this fluency:

Fluency A - addition

$$\begin{array}{r} 1) \quad 57.3 \\ + 28.8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 59.2 \\ + 25.4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 84.8 \\ + 36.7 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 166.3 \\ + 46.6 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 295.9 \\ + 78.3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 183.6 \\ + 69.5 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad 385.8 \\ + 156.2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad 532.7 \\ + 348.4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 9) \quad 494.5 \\ + 269.1 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 10) \quad 257.7 \\ + 269.1 \\ \hline \\ \hline \end{array}$$

Fluency A - subtraction

$$\begin{array}{r} 1) \quad 45.6 \\ - 13.9 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 38.4 \\ - 22.5 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 73.7 \\ - 56.3 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 9.92 \\ - 4.74 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 8.15 \\ - 3.48 \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 6.63 \\ - 2.28 \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad 2.49 \\ - 0.83 \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad 4.75 \\ - 3.16 \\ \hline \end{array}$$

$$\begin{array}{r} 9) \quad 7.08 \\ - 2.62 \\ \hline \end{array}$$

$$\begin{array}{r} 10) \quad 8.52 \\ - 5.45 \\ \hline \end{array}$$

Problem Solving and Reasoning

Explain it!



When you subtract from a place which has nothing in it, you can write the number underneath



Rita

$$\begin{array}{r} 4.9 \\ - 3.85 \\ \hline 1.15 \end{array}$$

Do you agree with Rita?
Explain your answer.

Use it!



Can you find the missing numbers in the calculation?

$$\begin{array}{r} 31.\text{★}0 \\ - \text{★}.37 \\ \hline 29.63 \end{array}$$

Explain it!



$$4.144 + 1.4$$

Here is his working out.

$$\begin{array}{r} 4.144 \\ + 1.4 \\ \hline 4.248 \end{array}$$

Can you spot and explain his error?

Fluency A - addition

$$\begin{array}{r} 1) \quad 57.3 \\ + 28.8 \\ \hline 86.1 \\ 11 \end{array} \quad \begin{array}{r} 2) \quad 5.92 \\ + 2.54 \\ \hline 8.46 \\ 1 \end{array} \quad \begin{array}{r} 3) \quad 8.48 \\ + 3.67 \\ \hline 12.15 \\ 11 \end{array}$$

$$\begin{array}{r} 4) \quad 16.63 \\ + 4.66 \\ \hline 21.29 \\ 11 \end{array} \quad \begin{array}{r} 5) \quad 29.59 \\ + 7.83 \\ \hline 37.42 \\ 1111 \end{array}$$

$$\begin{array}{r} 6) \quad 18.36 \\ + 6.95 \\ \hline 25.31 \\ 111 \end{array} \quad \begin{array}{r} 7) \quad 38.58 \\ + 15.62 \\ \hline 54.20 \\ 1111 \end{array}$$

$$\begin{array}{r} 8) \quad 53.27 \\ + 34.84 \\ \hline 88.13 \\ 111 \end{array} \quad \begin{array}{r} 9) \quad 49.45 \\ + 26.91 \\ \hline 76.36 \\ 111 \end{array}$$

$$\begin{array}{r} 10) \quad 25.77 \\ + 26.91 \\ \hline 52.68 \\ 11 \end{array}$$

Fluency A - subtraction

$$\begin{array}{r} 1) \quad 45.6 \\ - 13.9 \\ \hline 31.7 \\ 45.6 \\ 31.7 \end{array} \quad \begin{array}{r} 2) \quad 38.4 \\ - 22.5 \\ \hline 15.9 \\ 38.4 \\ 15.9 \end{array} \quad \begin{array}{r} 3) \quad 73.7 \\ - 56.3 \\ \hline 17.4 \\ 73.7 \\ 56.3 \end{array}$$

$$\begin{array}{r} 4) \quad 99.2 \\ - 47.4 \\ \hline 51.8 \\ 99.2 \\ 51.8 \end{array} \quad \begin{array}{r} 5) \quad 81.5 \\ - 34.8 \\ \hline 46.7 \\ 81.5 \\ 46.7 \end{array} \quad \begin{array}{r} 6) \quad 66.3 \\ - 22.8 \\ \hline 43.7 \\ 66.3 \\ 43.7 \end{array}$$






$$\begin{array}{r} 7) \quad 24.9 \\ - 0.83 \\ \hline 1.66 \\ 24.9 \\ 1.66 \end{array} \quad \begin{array}{r} 8) \quad 47.5 \\ - 31.6 \\ \hline 1.59 \\ 47.5 \\ 31.6 \end{array} \quad \begin{array}{r} 9) \quad 70.8 \\ - 26.2 \\ \hline 44.6 \\ 70.8 \\ 44.6 \end{array}$$

$$\begin{array}{r} 10) \quad 85.2 \\ - 54.5 \\ \hline 30.7 \\ 85.2 \\ 54.5 \\ 30.7 \end{array}$$

Fluency B answers

- 1) 13.523
- 2) 21.41
- 3) 9.067
- 4) 9.213
- 5) 43.54
- 6) 42.2
- 7) 109.12
- 8) 8.767
- 9) 15.721
- 10) 8.041

- 1) 12.62
- 2) 3.825
- 3) 73.46
- 4) 1.112
- 5) 6.2
- 6) 2.817
- 7) 3.061
- 8) 1.092
- 9) 1.092
- 10) 0.659

Problem Solving and Reasoning		Answers
<p>Explain it!</p>  <p>When you subtract from a place which has nothing in it, you can write the number underneath</p>  Rita $\begin{array}{r} 4.9 \\ - 3.85 \\ \hline 1.15 \end{array}$ <p>Do you agree with Rita? Explain your answer.</p>	<p>Incorrect You need to use a place holder and exchange</p>	
<p>Use it!</p>  $\begin{array}{r} 31.00 \\ - 1.37 \\ \hline 29.63 \end{array}$ <p>Can you find the missing numbers in the calculation?</p>	$\begin{array}{r} 31.00 \\ - 1.37 \\ \hline 29.63 \end{array}$	
<p>Explain it!</p>  <p>Pavel is trying to find the answer to  $4,144 + 1.4$</p> <p>Here is his working out.</p> <div style="border: 1px solid purple; border-radius: 15px; padding: 10px; width: fit-content; margin: 10px auto;"> $\begin{array}{r} 4.144 \\ + 1.4 \\ \hline 4.248 \end{array}$ </div> <p>Can you spot and explain his error?</p>	<p>Pavel has not put the digits in the correct place value columns and has not lined the decimal points up.</p>	