

2. [Decimal +,-]

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Skill 2.1 Adding decimal numbers (1).

MMMaive 11 2 3 3 4 4
MMLime 11 2 2 3 3 4 4

- Work vertically, lining up the decimal points.
- Add from right to left in the columns.

Q. $3.42 + 0.38 =$

A. 3.80

$$\begin{array}{r} 3.42 \\ + 0.38 \\ \hline 3.80 \end{array}$$

$2 + 8 = 10$ carry 1, write 0

$4 + 3 + \text{carry } 1 = 8$ write 8

$3 + 0 = 3$ write 3

a) $0.14 + 0.08 =$

0.22

b) $7.5 + 3.8 =$

$$\begin{array}{r} 0.14 \\ + 0.08 \\ \hline 0.22 \end{array}$$

$$\begin{array}{r} 7.5 \\ + 3.8 \\ \hline 11.3 \end{array}$$

c) $0.65 + 0.27 =$

d) $4.34 + 3.81 =$

$$\begin{array}{r} 0.65 \\ + 0.27 \\ \hline \end{array}$$

$$\begin{array}{r} 4.34 \\ + 3.81 \\ \hline \end{array}$$

e) $13.007 + 16.507 =$

f) $1.492 + 5.774 =$

$$\begin{array}{r} 13.007 \\ + 16.507 \\ \hline \end{array}$$

$$\begin{array}{r} 1.492 \\ + 5.774 \\ \hline \end{array}$$

g) $3.45 + 2.05 =$

h) $16.097 + 11.332 =$

$$\begin{array}{r} 3.45 \\ + 2.05 \\ \hline \end{array}$$

$$\begin{array}{r} 16.097 \\ + 11.332 \\ \hline \end{array}$$

i) $7.035 + 2.97 =$

j) $8.3 + 2.65 =$

$$\begin{array}{r} 7.035 \\ + 2.97 \\ \hline \end{array}$$

$$\begin{array}{r} 8.3 \\ + 2.65 \\ \hline \end{array}$$

Skill 2.2 Subtracting decimal numbers (1).

- Write the numbers vertically, lining up the decimal points.
- Subtract from right to left in the columns.
- If there is no digit in a space after the last digit of a decimal number, then you can add a zero if you need one.

Q. $5.09 - 0.983 =$

A. 4.107

$$\begin{array}{r} 5 \overset{1}{.} 0 \overset{1}{.} 9 \overset{1}{.} 0 \\ - 0 \overset{1}{.} 9 \overset{1}{.} 8 \overset{1}{.} 3 \\ \hline 4 \overset{1}{.} 1 \overset{1}{.} 0 \overset{1}{.} 7 \end{array}$$

Add a 0 after the 9.

$0 - 3 = ?$ Borrow 1 hundredth or 10 thousandths.

$10 - 3 = 7$ write 7

Pay back 1 hundredth.

$8 + 1 = 9$

$9 - 9 = 0$ write 0

$0 - 9 = ?$ Borrow 1 unit or 10 tenths.

$10 - 9 = 1$ write 1

Pay back 1 unit.

$0 + 1 = 1$

$5 - 1 = 4$ write 4

a) $5.62 - 0.51 =$

5.11

b) $9.6 - 7.8 =$

$$\begin{array}{r} 5 \overset{1}{.} 6 \overset{1}{.} 2 \\ - 0 \overset{1}{.} 5 \overset{1}{.} 1 \\ \hline 5 \overset{1}{.} 1 \overset{1}{.} 1 \end{array}$$

$$\begin{array}{r} 9 \overset{1}{.} 6 \\ - 7 \overset{1}{.} 8 \\ \hline 1 \overset{1}{.} 8 \end{array}$$

c) $9.07 - 4.56 =$

d) $1.068 - 0.097 =$

$$\begin{array}{r} 9 \overset{1}{.} 0 \overset{1}{.} 7 \\ - 4 \overset{1}{.} 5 \overset{1}{.} 6 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \overset{1}{.} 0 \overset{1}{.} 6 \overset{1}{.} 8 \\ - 0 \overset{1}{.} 0 \overset{1}{.} 9 \overset{1}{.} 7 \\ \hline \end{array}$$

e) $25.45 - 15.72 =$

f) $10.37 - 4.6 =$

$$\begin{array}{r} 2 \overset{1}{.} 5 \overset{1}{.} 4 \overset{1}{.} 5 \\ - 1 \overset{1}{.} 5 \overset{1}{.} 7 \overset{1}{.} 2 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \overset{1}{.} 0 \overset{1}{.} 3 \overset{1}{.} 7 \\ - 4 \overset{1}{.} 6 \\ \hline \end{array}$$

g) $14.072 - 8 =$

h) $4.043 - 0.807 =$

$$\begin{array}{r} 1 \overset{1}{.} 4 \overset{1}{.} 0 \overset{1}{.} 7 \overset{1}{.} 2 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \overset{1}{.} 0 \overset{1}{.} 4 \overset{1}{.} 3 \\ - 0 \overset{1}{.} 8 \overset{1}{.} 0 \overset{1}{.} 7 \\ \hline \end{array}$$

Skill 2.2 Subtracting decimal numbers (2).

MMMaive 1 1 2 3 4 4
MMLime 1 1 2 3 3 4 4

i) $1.36 - 0.058 =$

$$\begin{array}{r} 1 \quad 3 \quad 6 \quad 0 \\ - 0 \quad 0 \quad 5 \quad 8 \\ \hline 1 \quad 3 \quad 0 \quad 2 \end{array}$$

1.302

j) $5.4 - 0.75 =$

$$\begin{array}{r} 5 \quad 4 \quad 0 \\ - \\ \hline \end{array}$$

k) $12.5 - 0.047 =$

$$\begin{array}{r} 1 \quad 2 \quad 5 \quad 0 \quad 0 \\ - \\ \hline \end{array}$$

l) $0.086 - 0.009 =$

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

m) $6.02 - 0.055 =$

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

n) $24.9 - 6.33 =$

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

o) $1.9 - 1.743 =$

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

p) $15.08 - 0.491 =$

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

q) $2.006 - 1.4 =$

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

r) $23.33 - 16.66 =$

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

s) $14.14 - 1.41 =$

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

t) $5.3 - 0.503 =$

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

Skill 2.3 Subtracting a decimal number from a whole number (1).

- Write a decimal point at the end of the whole number.
- Add as many zeros after the decimal point as there are decimal places in the decimal number.
- Work vertically, lining up the decimal points.
- Subtract from right to left in the columns.

Q. $10 - 0.38 =$

A. **9.62**

$$\begin{array}{r} 10.00 \\ - 0.38 \\ \hline 9.62 \end{array}$$

0 - 8 = ? Borrow 10 hundredths.
10 - 8 = 2 write 2
Pay back 10 hundredths or 1 tenth.
3 + 1 = 4
0 - 4 = ? Borrow 10 tenths.
10 - 4 = 6 write 6
Pay back 10 tenths or 1 unit.
0 + 1 = 1
0 - 1 = ? Borrow 10 units.
10 - 1 = 9 write 9
Pay back 10 units or 1 ten.
1 - 1 = 0

a) $1 - 0.07 =$

0.93

b) $1 - 0.09 =$

$$\begin{array}{r} 1.00 \\ - 0.07 \\ \hline 0.93 \end{array}$$

$$\begin{array}{r} 1.00 \\ - 0.09 \\ \hline .91 \end{array}$$

c) $10 - 2.7 =$

d) $1 - 0.034 =$

$$\begin{array}{r} 10.0 \\ - 2.7 \\ \hline \end{array}$$

$$\begin{array}{r} 1.000 \\ - 0.034 \\ \hline \end{array}$$

e) $10 - 0.84 =$

f) $10 - 5.637 =$

$$\begin{array}{r} 10.00 \\ - 0.84 \\ \hline \end{array}$$

$$\begin{array}{r} 10.000 \\ - 5.637 \\ \hline \end{array}$$

g) $100 - 8.3 =$

h) $100 - 0.23 =$

$$\begin{array}{r} 100.0 \\ - 8.3 \\ \hline \end{array}$$

$$\begin{array}{r} 100.00 \\ - 0.23 \\ \hline \end{array}$$

Skill 2.3 Subtracting a decimal number from a whole number (1).

MMMaive 11 22 33 44
MMLime 11 22 33 44

i) $8 - 0.62 =$

$$\begin{array}{r} 8 \\ - 0.62 \\ \hline 7.38 \end{array}$$

j) $5 - 0.27 =$

$$\begin{array}{r} 5 \\ - 27 \\ \hline \end{array}$$

k) $9 - 0.604 =$

$$\begin{array}{r} 9 \\ - 604 \\ \hline \end{array}$$

l) $6 - 2.71 =$

$$\begin{array}{r} 6 \\ - 2.71 \\ \hline \end{array}$$

m) $2 - 0.077 =$

$$\begin{array}{r} 2 \\ - 077 \\ \hline \end{array}$$

n) $13 - 3.78 =$

$$\begin{array}{r} 13 \\ - 3.78 \\ \hline \end{array}$$

o) $14 - 9.567 =$

$$\begin{array}{r} 14 \\ - 9.567 \\ \hline \end{array}$$

p) $18 - 0.515 =$

$$\begin{array}{r} 18 \\ - 515 \\ \hline \end{array}$$

q) $20 - 2.02 =$

$$\begin{array}{r} 20 \\ - 2.02 \\ \hline \end{array}$$

r) $43 - 0.307 =$

$$\begin{array}{r} 43 \\ - 307 \\ \hline \end{array}$$

s) $31 - 6.003 =$

$$\begin{array}{r} 31 \\ - 6.003 \\ \hline \end{array}$$

t) $13 - 0.333 =$

$$\begin{array}{r} 13 \\ - 333 \\ \hline \end{array}$$

Skill 2.4 Adding and subtracting decimal numbers (1).

- Use the order of operations rules and add or subtract from left to right across the equation.
- Complete the operations one at a time.
- Work each operation vertically, lining up the decimal points.
- When in column format, add or subtract from right to left in the columns.
- If there is no digit in a space at the end of a decimal number, then you can write a zero if you need one.

Q. $7.3 + 6.41 - 0.08 =$ **A.** 13.63

Complete the operations from left to right

$$\begin{array}{r}
 7.3 \\
 + 6.41 \\
 \hline
 13.71 \\
 - 0.08 \\
 \hline
 13.63
 \end{array}$$

First add $7.3 + 6.41$ by adding the digits from right to left.

Then subtract 0.08 from this result.

a) $5.238 - 1.45 + 0.66 =$

4.448

$$\begin{array}{r}
 5.238 \\
 - 1.450 \\
 \hline
 3.788 \\
 + 0.660 \\
 \hline
 4.448
 \end{array}$$

b) $4.7 + 1.05 - 0.5 =$

$$\begin{array}{r}
 4.70 \\
 + 1.05 \\
 \hline
 5.75 \\
 - 0.50 \\
 \hline
 .
 \end{array}$$

c) $13.3 - 4.6 + 0.77 =$

$$\begin{array}{r}
 13.3 \\
 - 4.6 \\
 \hline
 . \\
 + . \\
 \hline
 .
 \end{array}$$

d) $1 + 2.309 - 0.92 =$

$$\begin{array}{r}
 1.000 \\
 + 2.309 \\
 \hline
 . \\
 - . \\
 \hline
 .
 \end{array}$$

Skill 2.4 Adding and subtracting decimal numbers (2).

MMMaive 1 1 2 2 3 4 4
 MMLime 1 1 2 3 3 4 4

e) $0.99 + 1.067 - 0.48 =$

$$\begin{array}{r} \overset{.}{0} \overset{.}{9} \overset{.}{9} \\ + 1 \overset{.}{0} \overset{.}{6} \overset{.}{7} \\ \hline 2 \overset{.}{0} \overset{.}{5} \overset{.}{7} \\ - \overset{.}{0} \overset{.}{4} \overset{.}{8} \\ \hline \end{array}$$

f) $21 - 14.46 + 3.9 =$

$$\begin{array}{r} 21 \overset{.}{0} \overset{.}{0} \\ - 14 \overset{.}{4} \overset{.}{6} \\ \hline \\ + \\ \hline \end{array}$$

g) $16.7 + 0.336 - 1.59 =$

$$\begin{array}{r} 16 \overset{.}{7} \\ + 0 \overset{.}{3} \overset{.}{3} \overset{.}{6} \\ \hline \\ - \\ \hline \end{array}$$

h) $10.504 - 3.07 - 1.06 =$

$$\begin{array}{r} 10 \overset{.}{5} \overset{.}{0} \overset{.}{4} \\ - \\ \hline \\ - \\ \hline \end{array}$$

i) $0.223 + 11.094 - 8.4 =$

$$\begin{array}{r} + \\ \hline \\ - \\ \hline \end{array}$$

j) $21.75 - 0.336 - 1.9 =$

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

k) $18.093 - 13.007 + 0.256 =$

$$\begin{array}{r} - \\ \hline \\ + \\ \hline \end{array}$$

l) $1.08 - 0.241 + 12.121 =$

$$\begin{array}{r} - \\ \hline \\ + \\ \hline \end{array}$$