

## 2. [Decimal +,-]

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### Skill 2.1 Adding decimal numbers (1).

MM9 11 2 3 3 4 4  
MM10 1 2 2 3 3 4 4

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

<b>Q.</b> $3.42 + 0.38 =$	<b>A.</b> $3.80$	$\begin{array}{r} 3.42 \\ + 0.38 \\ \hline 3.80 \end{array}$	$2 + 8 = 10$ carry 1, write 0 $4 + 3 + \text{carry } 1 = 8$ write 8 $3 + 0 = 3$ write 3
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a)  $0.14 + 0.08 =$

0.22

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

b)  $7.5 + 3.8 =$

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

c)  $0.65 + 0.27 =$

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

d)  $4.34 + 3.81 =$

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

e)  $13.007 + 16.507 =$

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

f)  $1.492 + 5.774 =$

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

g)  $3.45 + 2.05 =$

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

h)  $16.097 + 11.332 =$

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

i)  $7.035 + 2.97 =$

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

j)  $8.3 + 2.65 =$

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



**Skill 2.2 Subtracting decimal numbers (1).**

MM9 1 1 2 2 3 3 4 4  
MM10 1 1 2 2 3 3 4 4

- 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.**  $4.107$

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

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**

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

**b)**  $9.6 - 7.8 =$

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

**c)**  $9.07 - 4.56 =$

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

**d)**  $1.068 - 0.097 =$

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

**e)**  $25.45 - 15.72 =$

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

**f)**  $10.37 - 4.6 =$

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

**g)**  $14.072 - 8 =$

$$\begin{array}{r} 1\overset{1}{4}.\overset{1}{0}\overset{1}{7}\overset{1}{2} \\ - \phantom{14.} \\ \hline \end{array}$$

**h)**  $4.043 - 0.807 =$

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

## Skill 2.2 Subtracting decimal numbers (2).

i)  $1.36 - 0.058 =$

1.302

$$\begin{array}{r} 1.360 \\ - 0.058 \\ \hline 1.302 \end{array}$$

j)  $5.4 - 0.75 =$

$$\begin{array}{r} 5.40 \\ - 0.75 \\ \hline \end{array}$$

k)  $12.5 - 0.047 =$

$$\begin{array}{r} 12.500 \\ - 0.047 \\ \hline \end{array}$$

l)  $0.086 - 0.009 =$

$$\begin{array}{r} 0.086 \\ - 0.009 \\ \hline \end{array}$$

m)  $6.02 - 0.055 =$

$$\begin{array}{r} 6.020 \\ - 0.055 \\ \hline \end{array}$$

n)  $24.9 - 6.33 =$

$$\begin{array}{r} 24.900 \\ - 6.330 \\ \hline \end{array}$$

o)  $1.9 - 1.743 =$

$$\begin{array}{r} 1.900 \\ - 1.743 \\ \hline \end{array}$$

p)  $15.08 - 0.491 =$

$$\begin{array}{r} 15.080 \\ - 0.491 \\ \hline \end{array}$$

q)  $2.006 - 1.4 =$

$$\begin{array}{r} 2.006 \\ - 1.400 \\ \hline \end{array}$$

r)  $23.33 - 16.66 =$

$$\begin{array}{r} 23.33 \\ - 16.66 \\ \hline \end{array}$$

s)  $14.14 - 1.41 =$

$$\begin{array}{r} 14.14 \\ - 1.41 \\ \hline \end{array}$$

t)  $5.3 - 0.503 =$

$$\begin{array}{r} 5.300 \\ - 0.503 \\ \hline \end{array}$$

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

MM9 11 22 33 44  
MM10 11 22 33 44

- 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**

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

**b)**  $1 - 0.09 =$

$$\begin{array}{r} 1.00 \\ - 0.09 \\ \hline 0.91 \end{array}$$

**c)**  $10 - 2.7 =$

$$\begin{array}{r} 10.0 \\ - 2.7 \\ \hline 7.3 \end{array}$$

**d)**  $1 - 0.034 =$

$$\begin{array}{r} 1.000 \\ - 0.034 \\ \hline 0.966 \end{array}$$

**e)**  $10 - 0.84 =$

$$\begin{array}{r} 10.00 \\ - 0.84 \\ \hline 9.16 \end{array}$$

**f)**  $10 - 5.637 =$

$$\begin{array}{r} 10.000 \\ - 5.637 \\ \hline 4.363 \end{array}$$

**g)**  $100 - 8.3 =$

$$\begin{array}{r} 100.0 \\ - 8.3 \\ \hline 91.7 \end{array}$$

**h)**  $100 - 0.23 =$

$$\begin{array}{r} 100.00 \\ - 0.23 \\ \hline 99.77 \end{array}$$

**Skill 2.3** Subtracting a decimal number from a whole number (2).

i)  $8 - 0.62 =$

7.38

$$\begin{array}{r} 8 \phantom{.00} \\ - 0.62 \\ \hline 7.38 \end{array}$$

j)  $5 - 0.27 =$

$$\begin{array}{r} 5 \phantom{.00} \\ - \phantom{0.}27 \\ \hline \phantom{0.} \phantom{00} \end{array}$$

k)  $9 - 0.604 =$

$$\begin{array}{r} 9 \phantom{.000} \\ - \phantom{0.}604 \\ \hline \phantom{0.} \phantom{000} \end{array}$$

l)  $6 - 2.71 =$

$$\begin{array}{r} \phantom{6.} \\ - \phantom{2.}71 \\ \hline \phantom{0.} \phantom{00} \end{array}$$

m)  $2 - 0.077 =$

$$\begin{array}{r} \phantom{2.} \\ - \phantom{0.}077 \\ \hline \phantom{0.} \phantom{000} \end{array}$$

n)  $13 - 3.78 =$

$$\begin{array}{r} 13 \phantom{.} \\ - \phantom{3.}78 \\ \hline \phantom{0.} \phantom{00} \end{array}$$

o)  $14 - 9.567 =$

$$\begin{array}{r} \phantom{14.} \\ - \phantom{9.}567 \\ \hline \phantom{0.} \phantom{000} \end{array}$$

p)  $18 - 0.515 =$

$$\begin{array}{r} \phantom{18.} \\ - \phantom{0.}515 \\ \hline \phantom{0.} \phantom{000} \end{array}$$

q)  $20 - 2.02 =$

$$\begin{array}{r} \phantom{20.} \\ - \phantom{2.}02 \\ \hline \phantom{0.} \phantom{00} \end{array}$$

r)  $43 - 0.307 =$

$$\begin{array}{r} 43 \phantom{.} \\ - \phantom{0.}307 \\ \hline \phantom{0.} \phantom{000} \end{array}$$

s)  $31 - 6.003 =$

$$\begin{array}{r} 31 \phantom{.} \\ - \phantom{6.}003 \\ \hline \phantom{0.} \phantom{000} \end{array}$$

t)  $13 - 0.333 =$

$$\begin{array}{r} 13 \phantom{.} \\ - \phantom{0.}333 \\ \hline \phantom{0.} \phantom{000} \end{array}$$

**Skill 2.4** Adding and subtracting decimal numbers (1).

MM9 11 22 33 44  
MM10 11 22 33 44

- Use BODMAS 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  $7.3 + 6.41$

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)**  $1 + 2.309 - 0.92 =$

$$\begin{array}{r} 1.000 \\ + 2.309 \\ \hline \\ - 0.92 \\ \hline \end{array}$$

**Skill 2.4** Adding and subtracting decimal numbers (2).

**e)**  $0.99 + 1.067 - 0.48 =$

$$\begin{array}{r} 0.99 \\ + 1.067 \\ \hline 2.057 \\ - 0.48 \\ \hline \end{array}$$

**f)**  $21 - 14.46 + 3.9 =$

$$\begin{array}{r} 21.00 \\ - 14.46 \\ \hline \\ + \phantom{00} \\ \hline \end{array}$$

**g)**  $16.7 + 0.336 - 1.59 =$

$$\begin{array}{r} 16.7 \\ + 0.336 \\ \hline \\ - \phantom{00} \\ \hline \end{array}$$

**h)**  $10.504 - 3.07 - 1.06 =$

$$\begin{array}{r} 10.504 \\ - \phantom{00} \\ \hline \\ - \phantom{00} \\ \hline \end{array}$$

**i)**  $0.223 + 11.094 - 8.4 =$

$$\begin{array}{r} + \phantom{0000} \\ \hline \\ - \phantom{0000} \\ \hline \end{array}$$

**j)**  $21.75 - 0.336 - 1.9 =$

$$\begin{array}{r} - \phantom{0000} \\ \hline \\ - \phantom{0000} \\ \hline \end{array}$$

**k)**  $18.093 - 13.007 + 0.256 =$

$$\begin{array}{r} - \phantom{0000} \\ \hline \\ + \phantom{0000} \\ \hline \end{array}$$

**l)**  $1.08 - 0.241 + 12.121 =$

$$\begin{array}{r} - \phantom{0000} \\ \hline \\ + \phantom{0000} \\ \hline \end{array}$$