

7. [Decimal +, -]

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Skill 7.1 Adding decimal numbers (1).

MMBlue 1 1 2 2 3 3 4 4
MMGreen 1 1 2 2 3 3 4 4

- Always keep your working columns in line, aligning the decimal places, units with units, tens with tens, etc.
- Add from right to left.

Q. $43.87 + 9.6 =$

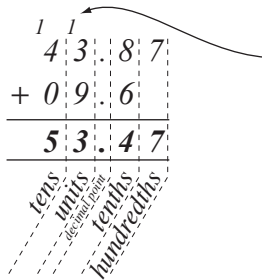
A. $43.87 + 9.6 = 53.47$

Hundredths: $7 + 0 = 7 \Rightarrow 7$ hundredths

Tenths: $8 + 6 = 14 \Rightarrow 4$ tenths
Carry over 10 tenths as 1 unit

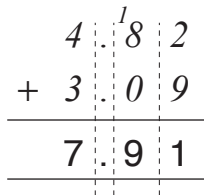
Units: $3 + 9 + \text{carry } 1 = 13 \Rightarrow 3$ units
Carry over 10 units as 1 ten

Tens: $4 + 0 + \text{carry } 1 = 5 \Rightarrow 5$ tens

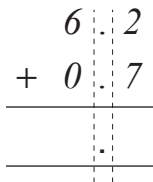


a) $4.82 + 3.09 =$

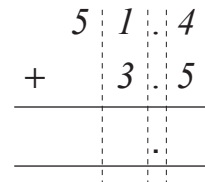
7.91



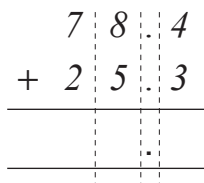
b) $6.2 + 0.7 =$



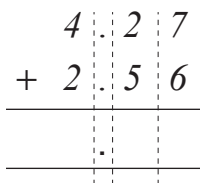
c) $51.4 + 3.5 =$



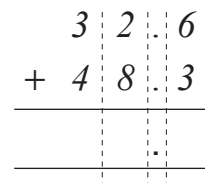
d) $78.4 + 25.3 =$



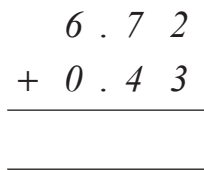
e) $4.27 + 2.56 =$



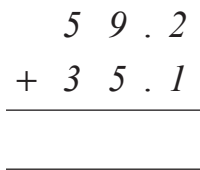
f) $32.6 + 48.3 =$



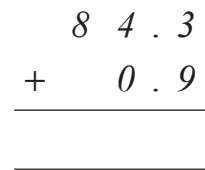
g) $6.72 + 0.43 =$



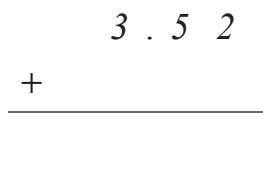
h) $59.2 + 35.1 =$



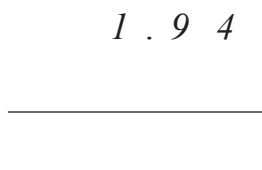
i) $84.3 + 0.9 =$



j) $3.52 + 40.08 =$



k) $1.94 + 27.6 =$



l) $51.4 + 3.58 =$



Skill 7.1 Adding decimal numbers (2).

MMBlue 1 2 3 4
MMGreen 1 2 3 4

m) $9.86 + 0.09 =$

$$\begin{array}{r} 9.86 \\ + 0.09 \\ \hline \end{array}$$

n) $7.54 + 6.3 =$

$$\begin{array}{r} 7.54 \\ + 6.3 \\ \hline \end{array}$$

o) $65.7 + 8 =$

$$\begin{array}{r} 65.7 \\ + 8.0 \\ \hline \end{array}$$

p) $42.08 + 17.95 =$

$$\begin{array}{r} 42.08 \\ + 17.95 \\ \hline \end{array}$$

q) $45.69 + 38.37 =$

$$\begin{array}{r} 45.69 \\ + 38.37 \\ \hline \end{array}$$

r) $64.8 + 9.72 =$

$$\begin{array}{r} 64.8 \\ + 9.72 \\ \hline \end{array}$$

s) $31.54 + 29.8 =$

$$\begin{array}{r} 31.54 \\ + 29.8 \\ \hline \end{array}$$

t) $5.47 + 26.7 =$

$$\begin{array}{r} 5.47 \\ + 26.7 \\ \hline \end{array}$$

u) $9 + 26.82 =$

$$\begin{array}{r} 9 \\ + 26.82 \\ \hline \end{array}$$

v) $0.5 + 49.7 + 6.41 =$

$$\begin{array}{r} 0.5 \\ 49.7 \\ + 6.41 \\ \hline \end{array}$$

w) $38.2 + 0.95 + 7 =$

$$\begin{array}{r} 38.2 \\ 0.95 \\ + 7 \\ \hline \end{array}$$

x) $51.46 + 8 + 4.9 =$

$$\begin{array}{r} 51.46 \\ 8 \\ + 4.9 \\ \hline \end{array}$$

y) $0.8 + 25.6 + 7.59 =$

$$\begin{array}{r} 0.8 \\ 25.6 \\ + 7.59 \\ \hline \end{array}$$

z) $23.5 + 6.974 + 0.69 =$

$$\begin{array}{r} 23.5 \\ 6.974 \\ + 0.69 \\ \hline \end{array}$$

zz) $0.258 + 7.9 + 24.56 =$

$$\begin{array}{r} 0.258 \\ 7.9 \\ + 24.56 \\ \hline \end{array}$$

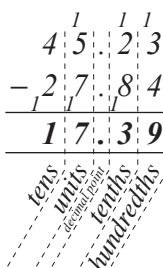
Skill 7.2 Subtracting decimal numbers (1).

MMBlue 1 1 2 2 3 3 4 4
MMGreen 1 1 2 2 3 3 4 4

- Always keep your working columns in line, aligning the decimal places, units with units, tens with tens, etc.
- Subtract from right to left.
- Whenever a number cannot be subtracted from another number to give a positive result then use either the decomposition or equal addition method. (see skill 5.4, page 12)

Q. $45.23 - 27.84 =$

A. $45.23 - 27.84 = 17.39$



Using the **Equal Addition** method

Hundredths: $3 - 4 = ?$

Add 10 hundredths to the 3 and 10 hundredths (1 tenth) to the 8 (bottom number in the tenths column)

$13 - 4 = 9$ hundredths

Tenths: $2 - (8 + 1) = ?$

Add 10 tenths to the 2 and 10 tenths (1 unit) to the 7 (bottom number in the units column)

$12 - 9 = 3$ tenths

Units: $5 - (7 + 1) = ?$

Add 10 units to the 5 and 10 units (1 ten) to the 2 (bottom number in the tens column)

$15 - 8 = 7$ tenths

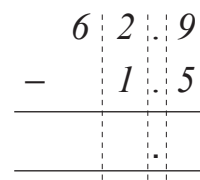
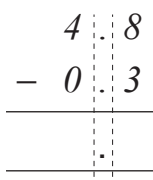
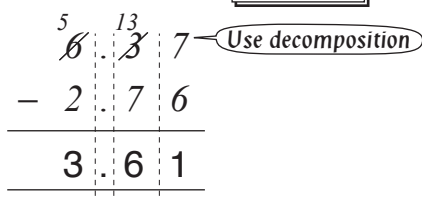
Tens: $4 - (2 + 1) = 1$ ten

a) $6.37 - 2.76 =$

3.61

b) $4.8 - 0.3 =$

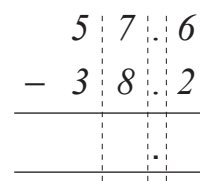
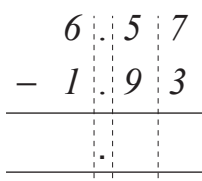
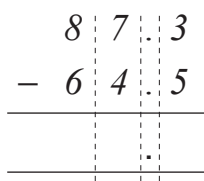
c) $62.9 - 1.5 =$



d) $87.3 - 64.5 =$

e) $6.57 - 1.93 =$

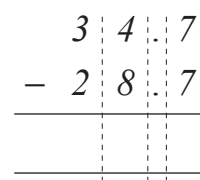
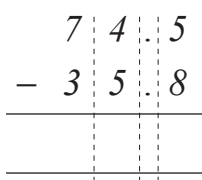
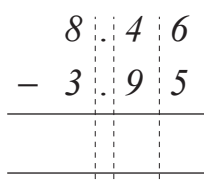
f) $57.6 - 38.2 =$



g) $8.46 - 3.95 =$

h) $74.5 - 35.8 =$

i) $34.7 - 28.7 =$



Skill 7.2 Subtracting decimal numbers (2).

MMBlue 1 2 3 4
MMGreen 1 2 3 4

j) $27.4 - 9.6 =$

$$\begin{array}{r} 27.4 \\ - 9.6 \\ \hline \\ \hline \end{array}$$

k) $8.24 - 0.75 =$

$$\begin{array}{r} 8.24 \\ - 0.75 \\ \hline \\ \hline \end{array}$$

l) $43.8 - 8.9 =$

$$\begin{array}{r} 43.8 \\ - 8.9 \\ \hline \\ \hline \end{array}$$

m) $63.45 - 6.52 =$

$$\begin{array}{r} 63.45 \\ - 6.52 \\ \hline \\ \hline \end{array}$$

n) $28.31 - 9.4 =$

$$\begin{array}{r} 28.31 \\ - 9.4 \\ \hline \\ \hline \end{array}$$

o) $25.4 - 8.63 =$

$$\begin{array}{r} 25.4 \\ - 8.63 \\ \hline \\ \hline \end{array}$$

p) $55.63 - 26.8 =$

$$\begin{array}{r} 55.63 \\ - 26.8 \\ \hline \\ \hline \end{array}$$

q) $37.4 - 6.91 =$

$$\begin{array}{r} 37.4 \\ - 6.91 \\ \hline \\ \hline \end{array}$$

r) $46.2 - 8.37 =$

$$\begin{array}{r} 46.2 \\ - 8.37 \\ \hline \\ \hline \end{array}$$

s) $45.23 - 27.84 =$

$$\begin{array}{r} 45.23 \\ - 27.84 \\ \hline \\ \hline \end{array}$$

t) $34.21 - 18.45 =$

$$\begin{array}{r} 34.21 \\ - 18.45 \\ \hline \\ \hline \end{array}$$

u) $65.62 - 19.84 =$

$$\begin{array}{r} 65.62 \\ - 19.84 \\ \hline \\ \hline \end{array}$$

v) $90.03 - 4.08 =$

$$\begin{array}{r} 90.03 \\ - 4.08 \\ \hline \\ \hline \end{array}$$

w) $80.5 - 4.63 =$

$$\begin{array}{r} 80.5 \\ - 4.63 \\ \hline \\ \hline \end{array}$$

x) $25.46 - 7.59 =$

$$\begin{array}{r} 25.46 \\ - 7.59 \\ \hline \\ \hline \end{array}$$

y) $35.46 - 27.48 =$

$$\begin{array}{r} 35.46 \\ - 27.48 \\ \hline \\ \hline \end{array}$$

z) $66.23 - 19.54 =$

$$\begin{array}{r} 66.23 \\ - 19.54 \\ \hline \\ \hline \end{array}$$

zz) $57.2 - 9.84 =$

$$\begin{array}{r} 57.2 \\ - 9.84 \\ \hline \\ \hline \end{array}$$

Skill 7.3 Subtracting a decimal number from a whole number.

- Always keep your working columns in line, aligning the decimal places, units with units, tens with tens, etc.
- Subtract from right to left.
- Whenever a digit cannot be subtracted from another digit to give a positive result then use either the decomposition or equal addition method. (see skill 5.4, page 12)

Q. $10 - 5.91 =$

A. $10 - 5.91 = 4.09$

$$\begin{array}{r}
 \overset{0}{\cancel{1}}\overset{9}{\cancel{0}}\overset{9}{\cancel{0}}\overset{10}{\cancel{0}} \\
 - 5.91 \\
 \hline
 4.09
 \end{array}$$

tens *units* *tenths* *hundredths*

Using the **Decomposition** method:

Work from right to left until you reach a number you can borrow from, in this case the 1 ten. Restructure the 1 ten to 9 units, 9 tenths and 10 hundredths.

Hundredths: $10 - 1 = 9$ hundredths

Tenths: $9 - 9 = 0$ tenths

Units: $9 - 5 = 4$ units

Tens: $0 - 0 = 0$ tens

a) $3 - 1.27 =$

1.73

b) $8 - 3.7 =$

c) $4 - 2.75 =$

$$\begin{array}{r}
 3.\overset{1}{0}\overset{1}{0} \\
 - 1.27 \\
 \hline
 1.73
 \end{array}$$

Use equal addition

$$\begin{array}{r}
 8.\overset{0}{0} \\
 - 3.7 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 4.\overset{0}{0}\overset{0}{0} \\
 - 2.75 \\
 \hline
 \end{array}$$

d) $4 - 1.61 =$

e) $7 - 3.38 =$

f) $8 - 3.25 =$

$$\begin{array}{r}
 4.\overset{0}{0}\overset{0}{0} \\
 - 1.61 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 7.\overset{0}{0}\overset{0}{0} \\
 - 3.38 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 8.\overset{0}{0}\overset{0}{0} \\
 - 3.25 \\
 \hline
 \end{array}$$

g) $13 - 2.54 =$

h) $19 - 3.87 =$

i) $22 - 7.43 =$

$$\begin{array}{r}
 13.\overset{0}{0}\overset{0}{0} \\
 - 2.54 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 19.\overset{0}{0}\overset{0}{0} \\
 - 3.87 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 22.\overset{0}{0}\overset{0}{0} \\
 - 7.43 \\
 \hline
 \end{array}$$

j) $7 - 0.357 =$

k) $9 - 0.619 =$

l) $6 - 0.802 =$

$$\begin{array}{r}
 \overset{6}{\cancel{7}}.\overset{9}{\cancel{0}}\overset{9}{\cancel{0}}\overset{10}{\cancel{0}} \\
 - 0.357 \\
 \hline
 6.643
 \end{array}$$

Use decomposition

$$\begin{array}{r}
 9.\overset{0}{0}\overset{0}{0} \\
 - 0.619 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 6.\overset{0}{0}\overset{0}{0} \\
 - 0.802 \\
 \hline
 \end{array}$$