

7. [Decimal +,-]

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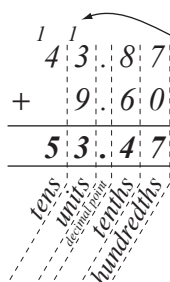
MM7 1 1 2 2 3 3 4 4
MM8 1 1 2 2 3 3 4 4

Skill 7.1 Adding decimal numbers (1).

- Always keep your working columns in line, aligning the decimal points, 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

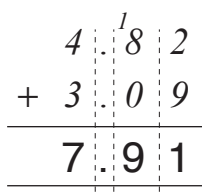


Tenths: $8 + 6 = 14 \Rightarrow 4$ tenths
Carry over 10 tenths as 1 unit

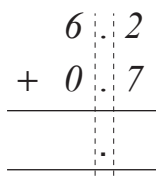
Units: $3 + 9 + \text{carry } 1 = 13 \Rightarrow 3$ units
Carry over 10 units as 1 ten

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

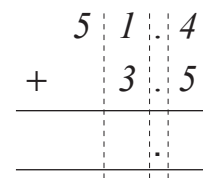
a) $4.82 + 3.09 =$



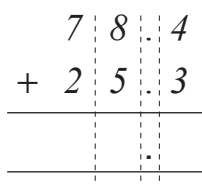
b) $6.2 + 0.7 =$



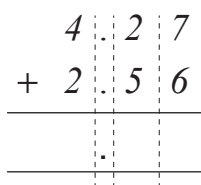
c) $51.4 + 3.5 =$



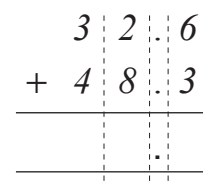
d) $78.4 + 25.3 =$



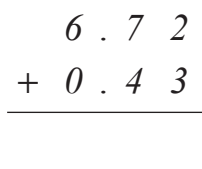
e) $4.27 + 2.56 =$



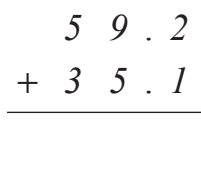
f) $32.6 + 48.3 =$



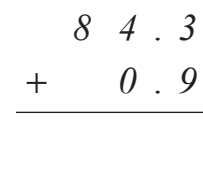
g) $6.72 + 0.43 =$



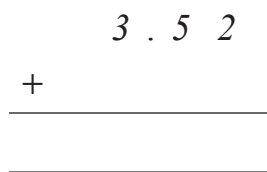
h) $59.2 + 35.1 =$



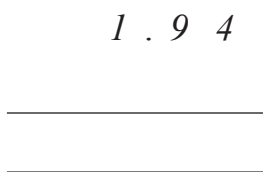
i) $84.3 + 0.9 =$



j) $3.52 + 40.08 =$



k) $1.94 + 27.6 =$



l) $51.4 + 3.58 =$



Skill 7.1 Adding decimal numbers (2).

MM7 1 2 3 4
MM8 1 2 3 4

m) $9.86 + 0.09 =$

$$\begin{array}{r} 9 \ . \ 8 \ 6 \\ + 0 \ . \ 0 \ 9 \\ \hline \\ \hline \end{array}$$

n) $7.54 + 6.3 =$

$$\begin{array}{r} 7 \ . \ 5 \ 4 \\ + 6 \ . \ 3 \\ \hline \\ \hline \end{array}$$

o) $65.7 + 8 =$

$$\begin{array}{r} 6 \ 5 \ . \ 7 \\ + 8 \ . \ 0 \\ \hline \\ \hline \end{array}$$

p) $42.08 + 17.95 =$

$$\begin{array}{r} 4 \ 2 \ . \ 0 \ 8 \\ + \\ \hline \\ \hline \end{array}$$

q) $45.69 + 38.37 =$

$$\begin{array}{r} 4 \ 5 \ . \ 6 \ 9 \\ + \\ \hline \\ \hline \end{array}$$

r) $64.8 + 9.72 =$

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

s) $31.54 + 29.8 =$

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

t) $5.47 + 26.7 =$

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

u) $9 + 26.82 =$

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

v) $0.5 + 49.7 + 6.41 =$

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

w) $38.2 + 0.95 + 7 =$

$$\begin{array}{r} 3 \ 8 \ . \ 2 \\ 0 \ . \ 9 \ 5 \\ + 7 \ . \\ \hline \\ \hline \end{array}$$

x) $51.46 + 8 + 4.9 =$

$$\begin{array}{r} 5 \ 1 \ . \ 4 \ 6 \\ + \\ \hline \\ \hline \end{array}$$

y) $0.8 + 25.6 + 7.59 =$

$$\begin{array}{r} 0 \ . \ 8 \\ + \\ \hline \\ \hline \end{array}$$

z) $23.5 + 6.974 + 0.69 =$

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

zz) $0.258 + 7.9 + 24.56 =$

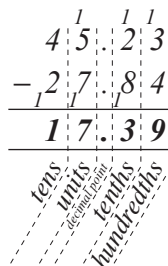
$$\begin{array}{r} \\ + \\ \hline \\ \hline \end{array}$$

Skill 7.2 Subtracting decimal numbers (1).

- Always keep your working columns in line, aligning the decimal points, 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



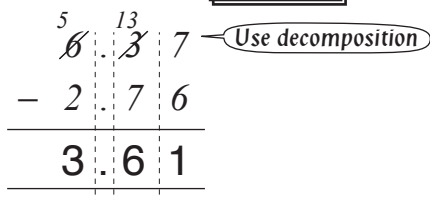
Hundredths: $3 - 4 = ?$
Add 10 hundredths to the 3 and 10 hundredths (1 tenth) to the 8 (bottom number in the tenths column)
 $13 - 4 = 9$ hundredths

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

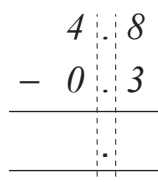
Units: $5 - (7 + 1) = ?$
Add 10 units to the 5 and 10 units (1 ten) to the 2 (bottom number in the tens column)
 $15 - 8 = 7$ units

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

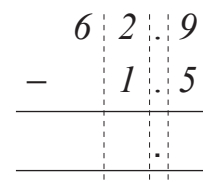
a) $6.37 - 2.76 =$



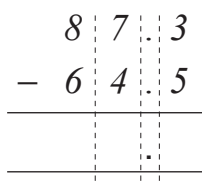
b) $4.8 - 0.3 =$



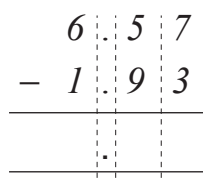
c) $62.9 - 1.5 =$



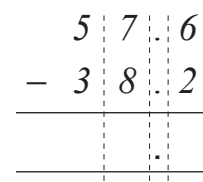
d) $87.3 - 64.5 =$



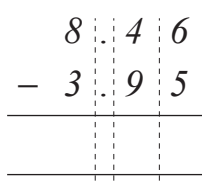
e) $6.57 - 1.93 =$



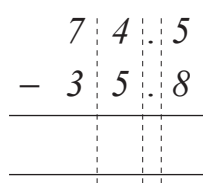
f) $57.6 - 38.2 =$



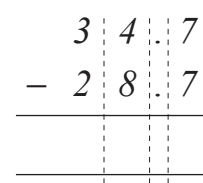
g) $8.46 - 3.95 =$



h) $74.5 - 35.8 =$



i) $34.7 - 28.7 =$



Skill 7.2 Subtracting decimal numbers (2).

MM7 1 2 3 4
MM8 1 2 3 4

j) $27.4 - 9.6 =$ k) $8.24 - 0.75 =$ l) $43.8 - 8.9 =$

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

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

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

m) $63.45 - 6.52 =$ n) $28.31 - 9.4 =$ o) $25.4 - 8.63 =$

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

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

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

p) $55.63 - 26.8 =$ q) $37.4 - 6.91 =$ r) $46.2 - 8.37 =$

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

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

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

s) $45.23 - 27.84 =$ t) $34.21 - 18.45 =$ u) $65.62 - 19.84 =$

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

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

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

v) $90.03 - 4.08 =$ w) $80.5 - 4.63 =$ x) $25.46 - 7.59 =$

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

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

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

y) $35.46 - 27.48 =$ z) $66.23 - 19.54 =$ zz) $57.2 - 9.84 =$

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

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

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

- 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.
- 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. $10 - 5.91 =$
 $= 10.00 - 5.91$
 $= 4.09$

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

tens units tenths hundredths
decomposed

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

$$\begin{array}{r}
 8.0 \\
 - 3.7 \\
 \hline
 \end{array}$$

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

d) $4 - 1.61 =$

e) $7 - 3.38 =$

f) $8 - 3.25 =$

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

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

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

g) $13 - 2.54 =$

h) $19 - 3.87 =$

i) $22 - 7.43 =$

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

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

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

j) $7 - 0.357 =$

k) $9 - 0.619 =$

l) $6 - 0.802 =$

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

Use decomposition

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

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