

# 7. [Decimal +,-]

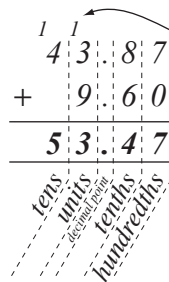
## Skill 7.1 Adding decimal numbers (1).

MM4.2 1 1 2 2 3 3 4 4  
MM5.1 1 1 2 2 3 3 4 4

- 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)  $4.82 + 3.09 =$

$$\begin{array}{r} 4 \ . \ 8 \ 2 \\ + 3 \ . \ 0 \ 9 \\ \hline 7 \ . \ 9 \ 1 \end{array}$$

b)  $6.2 + 0.7 =$

$$\begin{array}{r} 6 \ . \ 2 \\ + 0 \ . \ 7 \\ \hline \end{array}$$

c)  $51.4 + 3.5 =$

$$\begin{array}{r} 5 \ 1 \ . \ 4 \\ + \quad 3 \ . \ 5 \\ \hline \end{array}$$

d)  $78.4 + 25.3 =$

$$\begin{array}{r} 7 \ 8 \ . \ 4 \\ + 2 \ 5 \ . \ 3 \\ \hline \end{array}$$

e)  $4.27 + 2.56 =$

$$\begin{array}{r} 4 \ . \ 2 \ 7 \\ + 2 \ . \ 5 \ 6 \\ \hline \end{array}$$

f)  $32.6 + 48.3 =$

$$\begin{array}{r} 3 \ 2 \ . \ 6 \\ + 4 \ 8 \ . \ 3 \\ \hline \end{array}$$

g)  $6.72 + 0.43 =$

$$\begin{array}{r} 6 \ . \ 7 \ 2 \\ + 0 \ . \ 4 \ 3 \\ \hline \end{array}$$

h)  $59.2 + 35.1 =$

$$\begin{array}{r} 5 \ 9 \ . \ 2 \\ + 3 \ 5 \ . \ 1 \\ \hline \end{array}$$

i)  $84.3 + 0.9 =$

$$\begin{array}{r} 8 \ 4 \ . \ 3 \\ + \quad 0 \ . \ 9 \\ \hline \end{array}$$

j)  $3.52 + 40.08 =$

$$\begin{array}{r} 3 \ . \ 5 \ 2 \\ + \quad \quad \quad \\ \hline \end{array}$$

k)  $1.94 + 27.6 =$

$$\begin{array}{r} 1 \ . \ 9 \ 4 \\ + \quad \quad \quad \\ \hline \end{array}$$

l)  $51.4 + 3.58 =$

$$\begin{array}{r} 5 \ 1 \ . \ 4 \\ + \quad 3 \ . \ 5 \ 8 \\ \hline \end{array}$$

**Skill 7.1** Adding decimal numbers (2).

MM4.2 1 1 2 2 3 3 4 4  
MM5.1 1 1 2 2 3 3 4 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)  $23.5 + 6.974 + 0.69 =$

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

A)  $0.258 + 7.9 + 24.56 =$

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

- 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.  $45.23 - 27.84 = 17.39$

$$\begin{array}{r}
 \overset{1}{4} \overset{1}{5} \overset{1}{.} \overset{1}{2} \overset{1}{3} \\
 - \overset{1}{2} \overset{1}{7} \overset{1}{.} \overset{1}{8} \overset{1}{4} \\
 \hline
 \overset{1}{1} \overset{1}{7} \overset{1}{.} \overset{1}{3} \overset{1}{9}
 \end{array}$$

*tens*    *units*    *decimal point*    *tenths*    *hundredths*

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)

$$13 - 4 = 9 \text{ hundredths}$$

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

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

$$12 - 9 = 3 \text{ tenths}$$

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

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

$$15 - 8 = 7 \text{ units}$$

**Tens:**  $4 - (2 + 1) = 1 \text{ ten}$

a)  $6.37 - 2.76 =$

**3.61**

b)  $4.8 - 0.3 =$

c)  $62.9 - 1.5 =$

$$\begin{array}{r}
 \overset{5}{6} \overset{13}{.} \overset{13}{3} \overset{13}{7} \\
 - \overset{13}{2} \overset{13}{.} \overset{13}{7} \overset{13}{6} \\
 \hline
 \overset{13}{3} \overset{13}{.} \overset{13}{6} \overset{13}{1}
 \end{array}$$

Use decomposition

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

$$\begin{array}{r}
 6 \ 2 \ . \ 9 \\
 - \quad 1 \ . \ 5 \\
 \hline
 \end{array}$$

d)  $87.3 - 64.5 =$

e)  $6.57 - 1.93 =$

f)  $57.6 - 38.2 =$

$$\begin{array}{r}
 8 \ 7 \ . \ 3 \\
 - 6 \ 4 \ . \ 5 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 6 \ . \ 5 \ 7 \\
 - 1 \ . \ 9 \ 3 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 5 \ 7 \ . \ 6 \\
 - 3 \ 8 \ . \ 2 \\
 \hline
 \end{array}$$

g)  $8.46 - 3.95 =$

h)  $74.5 - 35.8 =$

i)  $34.7 - 28.7 =$

$$\begin{array}{r}
 8 \ . \ 4 \ 6 \\
 - 3 \ . \ 9 \ 5 \\
 \hline
 \end{array}$$

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

$$\begin{array}{r}
 3 \ 4 \ . \ 7 \\
 - 2 \ 8 \ . \ 7 \\
 \hline
 \end{array}$$

## Skill 7.2 Subtracting decimal numbers (2).

MM4.2 1 2 3 4  
MM5.1 1 2 3 4 4

j)  $27.4 - 9.6 =$

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

k)  $8.24 - 0.75 =$

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

l)  $43.8 - 8.9 =$

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

m)  $63.45 - 6.52 =$

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

n)  $28.31 - 9.4 =$

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

o)  $25.4 - 8.63 =$

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

p)  $55.63 - 26.8 =$

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

q)  $37.4 - 6.91 =$

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

r)  $46.2 - 8.37 =$

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

s)  $45.23 - 27.84 =$

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

t)  $34.21 - 18.45 =$

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

u)  $65.62 - 19.84 =$

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

v)  $90.03 - 4.08 =$

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

w)  $80.5 - 4.63 =$

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

x)  $25.46 - 7.59 =$

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

y)  $35.46 - 27.48 =$

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

z)  $66.23 - 19.54 =$

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

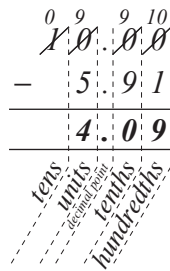
A)  $57.2 - 9.84 =$

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

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



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)  $4 - 2.75 =$

$$\begin{array}{r} 3 \ . \ 0 \ 0 \\ - 1 \ . \ 2 \ 7 \\ \hline 1 \ . \ 7 \ 3 \end{array}$$
 Use equal addition

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

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

d)  $4 - 1.61 =$

e)  $7 - 3.38 =$

f)  $8 - 3.25 =$

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

$$\begin{array}{r} 7 \ . \ . \\ - 3 \ . \ 3 \ 8 \\ \hline \end{array}$$

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

g)  $13 - 2.54 =$

h)  $19 - 3.87 =$

i)  $22 - 7.43 =$

$$\begin{array}{r} 1 \ 3 \ . \ . \\ - \ . \ . \\ \hline \end{array}$$

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

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

j)  $7 - 0.357 =$

k)  $9 - 0.619 =$

l)  $6 - 0.802 =$

$$\begin{array}{r} 7 \ . \ 0 \ 0 \ 0 \\ - 0 \ . \ 3 \ 5 \ 7 \\ \hline 6 \ . \ 6 \ 4 \ 3 \end{array}$$
 Use decomposition

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

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

