

9. Decimal Operations

Splitting Method

Split a decimal into its integer and fractional parts, compute each part, then combine.

a) **Addition:** $3.5 + 2.7$

$$\begin{aligned} 3.5 + 2.7 &= 3.5 + 2.5 + 0.2 \\ &= 6 + 0.2 \end{aligned}$$

$$3.5 + 2.7 = \mathbf{6.2}$$

b) **Subtraction:** $12.4 - 5.8$

$$\begin{aligned} 12.4 - 5.8 &= 12.4 - (5.4 + 0.4) \\ &= 12.4 - 5.4 - 0.4 = 7 - 0.4 \end{aligned}$$

$$12.4 - 5.8 = \mathbf{6.6}$$

c) **Multiplication:** 4.6×3

$$\begin{aligned} 4.6 \times 3 &= (4 + 0.6) \times 3 \\ &= 4 \times 3 + 0.6 \times 3 = 12 + 1.8 \end{aligned}$$

$$4.6 \times 3 = \mathbf{13.8}$$

d) **Division:** $8.4 \div 2$

$$\begin{aligned} 8.4 \div 2 &= (8 + 0.4) \div 2 \\ &= 8 \div 2 + 0.4 \div 2 = 4 + 0.2 \end{aligned}$$

$$8.4 \div 2 = \mathbf{4.2}$$

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e) $5.7 + 3.6 =$

f) $15.3 - 7.8 =$

g) $3.2 \times 5 =$

h) $9.6 \div 3 =$