

11. Single-Digit × Multi-Digit

a)

$$2847 \times 3$$

Method 1: Repeated Addition

$$2847 + 2847 + 2847$$

$$= 8541$$

Method 2: Decomposition

$$2847 = 2000 + 800 + 40 + 7$$

$$2000 \times 3 = 6000 \quad 800 \times 3 = 2400 \quad 40 \times 3 = 120 \quad 7 \times 3 = 21$$

$$6000 + 2400 + 120 + 21 = 8541$$

Method 3: Vertical Algorithm

$$\begin{array}{r} 2847 \\ \times 3 \\ \hline 8541 \end{array}$$

11. Single-Digit × Multi-Digit

b)

3 6 2 5 × 2

Method 1: Repeated Addition

+

+

=

Method 2: Decomposition

3625 =

+

+

+

×2=

×2=

×2=

×2=

+

+

+

+

=

Method 3: Vertical Algorithm

3 6 2 5

× 2

11. Single-Digit × Multi-Digit

c)

4 1 7 3 × 4

Method 1: Repeated Addition

+

+

=

Method 2: Decomposition

4173 = + + +

×4=

×4=

×4=

×4=

+

+

+

=

Method 3: Vertical Algorithm

4

1

7

3

×

4

11. Single-Digit × Multi-Digit

d)

5 2 0 6 × 3

Method 1: Repeated Addition

+

+

=

Method 2: Decomposition

5206 = + + +

× 3 = × 3 = × 3 = × 3 =

+ + + =

Method 3: Vertical Algorithm

5 2 0 6

× 3

e)

11. Single-Digit × Multi-Digit

f)

7 4 1 9 × 5

Method 1: Repeated Addition

+

+

=

Method 2: Decomposition

7419 = + + +

× 5 = × 5 = × 5 = × 5 =

+ + + =

Method 3: Vertical Algorithm

7 4 1 9

× 5