



### 9. VERTICALLY AND CROSSWISE

#### Practice 1 slide 2

$$1) \begin{array}{r} 2 \ 1 \\ 3 \ 1 \times \\ \hline \end{array}$$

$$2) \begin{array}{r} 2 \ 2 \\ 1 \ 3 \times \\ \hline \end{array}$$

$$3) \begin{array}{r} 3 \ 2 \\ 2 \ 1 \times \\ \hline \end{array}$$

#### Practice 2 slide 2

$$1) \begin{array}{r} 2 \ 4 \\ 3 \ 1 \times \\ \hline \end{array}$$

$$2) \begin{array}{r} 4 \ 3 \\ 2 \ 3 \times \\ \hline \end{array}$$

$$3) \begin{array}{r} 5 \ 4 \\ 2 \ 3 \times \\ \hline \end{array}$$

$$4) \begin{array}{r} 2 \ 8 \\ 4 \ 3 \times \\ \hline \end{array}$$

$$5) \begin{array}{r} 6 \ 7 \\ 7 \ 3 \times \\ \hline \end{array}$$

$$6) \begin{array}{r} 1 \ 9 \\ 2 \ 7 \times \\ \hline \end{array}$$

#### Practice 3 slide 3

$$1) \begin{array}{r} 3 \ 4 \\ 3 \ 7 \times \\ \hline \end{array}$$

$$2) \begin{array}{r} 5 \ 3 \\ 4 \ 2 \times \\ \hline \end{array}$$

$$3) \begin{array}{r} 6 \ 4 \\ 3 \ 4 \times \\ \hline \end{array}$$

$$4) \begin{array}{r} 3 \ 5 \\ 4 \ 7 \times \\ \hline \end{array}$$

$$5) \begin{array}{r} 8 \ 6 \\ 4 \ 2 \times \\ \hline \end{array}$$

$$6) \begin{array}{r} 9 \ 1 \\ 9 \ 2 \times \\ \hline \end{array}$$

#### Practice 4 slide 6 Divide:

$$1) \begin{array}{r} 2 \ 1 \times \\ \hline 4 \ 6 \ 2 \end{array}$$

$$2) \begin{array}{r} 4 \ 1 \times \\ \hline 1 \ 7 \ 2 \ 2 \end{array}$$

$$3) \begin{array}{r} 3 \ 3 \times \\ \hline 1 \ 1 \ 8 \ 8 \end{array}$$

$$4) \begin{array}{r} 7 \ 4 \times \\ \hline 5 \ 3 \ 2 \ 8 \end{array}$$

$$5) \begin{array}{r} 8 \ 2 \times \\ \hline 2 \ 2 \ 9 \ 6 \end{array}$$

$$6) \begin{array}{r} 5 \ 6 \times \\ \hline 2 \ 9 \ 7 \ 0 \end{array}$$

**Practice 5 slide 8 Multiply:**

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

$$2) \quad \begin{array}{r} x + 7 \\ \hline x + 6x \end{array}$$

$$3) \quad \begin{array}{r} 6x - 5 \\ \hline 3x + 4x \end{array}$$

$$4) \quad \begin{array}{r} 4x - 3 \\ \hline 2x - 7x \end{array}$$

**Practice 6 slide 9 Divide:**

$$1) \quad \begin{array}{r} \underline{5x + 6x} \\ 10x^2 + 17x + 6 \end{array}$$

$$2) \quad \begin{array}{r} \underline{3x + 2x} \\ 21x^2 + 38x + 16 \end{array}$$

$$3) \quad \begin{array}{r} \underline{x + 7x} \\ 6x^2 + 44x + 14 \end{array}$$

$$4) \quad \begin{array}{r} \underline{3x + 4x} \\ 6x^2 + 17x + 17 \end{array}$$

**Practice 7 slides 10, 11 Find the area of these rectangles:**

1) 2 ft 3 in by 2 ft 5 in

2) 4 ft 3 in by 5 ft 6 in

**Practice 8 slide 12 Add/subtract:**

$$1) \quad \frac{3}{4} + \frac{1}{9} =$$

$$2) \quad \frac{1}{2} + \frac{2}{5} =$$

$$3) \quad \frac{3}{5} - \frac{1}{4} =$$

$$4) \quad \frac{4}{7} - \frac{2}{11} =$$

$$5) \quad \frac{1}{2} - \frac{1}{3} =$$

$$6) \quad \frac{3}{4} + \frac{5}{6} =$$

**Practice 9 slide 13** Add/subtract:

1)  $\frac{3}{8} + 1 - 6 =$

2)  $\frac{5}{12} + \frac{5}{8} =$

3)  $\frac{7}{10} + \frac{4}{15} =$

4)  $\frac{13}{1} - \frac{5}{6} =$   
4

**Practice 10 slide 14** Add/subtract:

1)  $\frac{2}{5} + \frac{1}{4} + \frac{1}{7} =$

2)  $\frac{1}{5} - \frac{2}{3} + \frac{1}{2} =$

**Practice 11 slide 15** Which is greater/greatest?

1)  $\frac{5}{6}$  or  $\frac{4}{5}$

2)  $\frac{2}{9}$  or  $\frac{4}{17}$

3)  $\frac{4}{5}$ ,  $\frac{7}{8}$ ,  $\frac{6}{7}$

**Practice 12 slide 17** Multiply using vertical/crosswise/crosswise:

1) **113 x 23**

2) **123 x 201**

3) **224 x 32**

**Practice 13 slide 18** Multiply 2 figures at a time:

1) **112 x 207**

2) **1113 x 302**

3) **1201 x 2012**

**Practice 14 slide 19** Multiply using bar numbers:

1) **29 x 34**

2) **49 x 58**

3) **28 x 42**

**Practice 15 slide 20** Multiply (moving multiplier):

$$\begin{array}{r} 1) 232 \\ \underline{31} x \end{array}$$

$$\begin{array}{r} 2) 413 \\ \underline{23} x \end{array}$$

$$\begin{array}{r} 3) 524 \\ \underline{42} x \end{array}$$

**Practice 16 slide 21** Multiply (moving multiplier):

$$\begin{array}{r} 1) 2312 \\ \underline{31} x \end{array}$$

$$\begin{array}{r} 2) 1352 \\ \underline{23} x \end{array}$$

$$\begin{array}{r} 3) 4035 \\ \underline{42} x \end{array}$$

**Practice 17 slide 22** Multiply by Vertically and Crosswise:

$$\begin{array}{r} 1) 321 \\ \underline{321} x \end{array}$$

$$\begin{array}{r} 2) 512 \\ \underline{232} x \end{array}$$

$$\begin{array}{r} 3) 162 \\ \underline{432} x \end{array}$$

$$\begin{array}{r} 4) 3214 \\ \underline{3215} x \end{array}$$

$$\begin{array}{r} 5) 1312 \\ \underline{3232} x \end{array}$$

$$\begin{array}{r} 6) 4343 \\ \underline{3534} x \end{array}$$

ANSWERS  
LESSON 9

Pr 1

- 1) 651      2) 286      3) 672

Pr 2

- 1) 744      2) 989      3) 1242      4) 1204      5) 4891      6) 513

Pr 3

- 1) 1258      2) 2226      3) 2176      4) 1645      5) 3612      6) 8372

Pr 4

- 1) 22      2) 42      3) 36      4) 72      5) 28      6) 53 rem 2

Pr 5

- 1)  $15x^2 + 23x + 4$       2)  $x^2 + 13x + 42$   
3)  $18x^2 + 9x - 20$       4)  $8x^2 - 34x + 21$

Pr 6

- 1)  $2x + 1$       2)  $7x + 8$       3)  $6x + 2$       4)  $2x + 3$  rem 5

Pr 7

- 1) 5 sq ft 63 sq in      2) 23 sq ft 54 sq in

Pr 8

- 1)  $31/36$       2)  $9/10$       3)  $7/20$       4)  $30/77$       5)  $1/6$       6)  $19/12$

Pr 9

- 1)  $13/24$       2)  $25/24$       3)  $29/30$       4)  $2/21$

Pr 10

- 1)  $111/140$       2)  $1/30$

Pr 11

- 1)  $5/6$       2)  $4/17$       3)  $7/8$

Pr 12

- 1) 2599      2) 24723      3) 7168

Pr 13

- 1) 23184      2) 336126      3) 2416412

Pr 14

- 1) 986      2) 2842      3) 1176

Pr 15

- 1) 7192      2) 9499      3) 22008

Pr 16

- 1) 71672      2) 31096      3) 169470

Pr 17

- 1) 103041      2) 118784      3) 69984  
4) 10333010      5) 4240384      6) 15348162