

Name _____

Date _____

Multiplying Decimals

A. Calculate each product by multiplying as with whole numbers. Then determine the correct place of the decimal point.

1. 4.6×3.2

$14.72 \approx 15$

$$\begin{array}{r} 46 \rightarrow 1 \quad 5 \times 3 = 15 \\ \times 32 \rightarrow 1 \\ \hline 92 \\ + 1380 \\ \hline 1472 \rightarrow 2 \end{array}$$

2. 2.8×5.7

$15.96 \approx 18$

$$\begin{array}{r} 28 \rightarrow 1 \quad 3 \times 6 = 18 \\ \times 57 \rightarrow 1 \\ \hline 196 \\ + 1400 \\ \hline 1596 \rightarrow 2 \end{array}$$

3. 1.05×8.3

$8.715 \approx 8$

$$\begin{array}{r} 105 \rightarrow 2 \\ \times 83 \rightarrow 1 \quad 1 \times 8 = 8 \\ \hline 315 \\ + 8400 \\ \hline 8715 \rightarrow 3 \end{array}$$

4. 6.14×7.5

$46.05 \approx 48$

$$\begin{array}{r} 614 \rightarrow 2 \quad 6 \times 8 = 48 \\ \times 75 \rightarrow 1 \\ \hline 3070 \\ + 42980 \\ \hline 46050 \rightarrow 3 \end{array}$$

5. 2.037×9.4

$19.1478 \approx 18$

$$\begin{array}{r} 2037 \rightarrow 3 \quad 2 \times 9 = 18 \\ \times 94 \rightarrow 1 \\ \hline 8148 \\ + 183330 \\ \hline 191478 \rightarrow 4 \end{array}$$

6. 3.005×4.08

$12.2604 \approx 12$

$$\begin{array}{r} 3005 \rightarrow 3 \\ \times 408 \rightarrow 2 \quad 3 \times 4 = 12 \\ \hline 24040 \\ 00000 \\ + 1202000 \\ \hline 1226040 \rightarrow 5 \end{array}$$

B. Estimate each product to the nearest whole number. Then calculate each product.

1. 5.9×2.4

$14.16 \approx 14$

$$\begin{array}{r} 5.9 \rightarrow 1 \\ \times 2.4 \rightarrow 1 \\ \hline 236 \\ + 1180 \\ \hline 1416 \end{array}$$

$6 \times 2 = 12$

2. 3.1×6.2

$19.22 \approx 19$

$$\begin{array}{r} 3.1 \rightarrow 1 \\ \times 6.2 \rightarrow 1 \\ \hline 62 \\ + 1860 \\ \hline 1922 \rightarrow 2 \end{array}$$

$3 \times 6 = 18$

3. 4.17×7.2

$30.024 \approx 28$

$$\begin{array}{r} 4.17 \rightarrow 2 \\ \times 7.2 \rightarrow 1 \\ \hline 834 \\ + 29190 \\ \hline 30024 \rightarrow 3 \end{array}$$

$4 \times 7 = 28$

4. 2.06×8.25

$16.995 \approx 17$

$$\begin{array}{r} 2.06 \rightarrow 2 \\ \times 8.25 \rightarrow 2 \\ \hline 1030 \\ 4120 \\ + 164800 \\ \hline 169950 \rightarrow 4 \end{array}$$

$2 \times 8 = 16$

BONUS:

5. 9.154×1.62

$14.82948 \approx 15$

$$\begin{array}{r} 9.154 \rightarrow 3 \\ \times 1.62 \rightarrow 2 \\ \hline 18308 \\ 549240 \\ + 915400 \\ \hline 1482948 \rightarrow 5 \end{array}$$

$9 \times 2 = 18$

BONUS:

6. 8.361×2.042

$17.073162 \approx 17$

$$\begin{array}{r} 8.361 \rightarrow 3 \\ \times 2.042 \rightarrow 3 \\ \hline 16722 \\ 334440 \\ 000000 \\ + 16722000 \\ \hline 17073162 \rightarrow 6 \end{array}$$

$8 \times 2 = 16$