

Lesson #18 – Multiplying Decimals

- 1) You travel downstream in a raft of about 4.3 miles per hour. How far will you travel in 2.5 hours? (*HINT: To answer this question, you need to substitute the given values into the distance formula: Distance = Rate • Time.*)

$$\begin{array}{r} 4.3 \\ \times 2.5 \\ \hline 215 \\ 860 \\ \hline 10.75 \end{array}$$

10.75

Multiplying Decimals

To multiply decimals, multiply as you whole numbers. Then place the decimal point. The number of decimal places in the product is the total number of decimal places in the factors.

$$2.25 \times 8.9 = 20.025$$

2 places 1 place 3 places

Directions: Find the product. Check that the answer is reasonable.

2) $-7.39 \cdot 2.1$

$$\begin{array}{r} 7.39 \\ \times 2.1 \\ \hline 739 \\ 14780 \\ \hline -15.519 \end{array}$$

3) $19.62 \cdot 5.07$

$$\begin{array}{r} 19.62 \\ \times 5.07 \\ \hline 13734 \\ 00000 \\ 981000 \\ \hline 99.4734 \end{array}$$

4) $1.13 \cdot 0.04$

$$\begin{array}{r} 1.13 \\ \times 0.04 \\ \hline 452 \\ 0000 \\ 00000 \\ \hline 0.0452 \end{array}$$

5) $-0.85 \cdot (-8)$

$$\begin{array}{r} 0.85 \\ \times 8 \\ \hline 6.80 \end{array}$$

6) $0.6 \cdot 0.8$

$$\begin{array}{r} 0.6 \\ \times 0.8 \\ \hline 0.48 \end{array}$$

7) $-0.9 \cdot 0.27$

$$\begin{array}{r} 0.27 \\ \times 0.9 \\ \hline 243 \\ 0066 \\ \hline -0.243 \end{array}$$

8) $18.3 \cdot (-0.67)$

$$\begin{array}{r} 18.3 \\ \times 0.67 \\ \hline 1281 \\ 10980 \\ 00000 \\ \hline -12.261 \end{array}$$

9) $7.2(5.4)$

$$\begin{array}{r} 7.2 \\ \times 5.4 \\ \hline 288 \\ 3600 \\ \hline 38.88 \end{array}$$

10) $8.4(-0.003)$

$$\begin{array}{r} 8.4 \\ \times 0.003 \\ \hline 012 \\ 0240 \\ \hline -0.0252 \end{array}$$

11) $-0.28 \cdot (-28.1)$

$$\begin{array}{r} 28.1 \\ \times 0.28 \\ \hline 028 \\ 2240 \\ 05600 \\ \hline 07.868 \end{array}$$

12) $-0.53(-17.1)$

$$\begin{array}{r} 17.1 \\ \times 0.53 \\ \hline 1053 \\ 3710 \\ 05300 \\ \hline 09.063 \end{array}$$

13) $-1.89(0.375)$

$$\begin{array}{r} 0.375 \\ \times 1.89 \\ \hline 3375 \\ 30000 \\ 37500 \\ \hline -0.70875 \end{array}$$

14) $8.1 \cdot (-6.25)$

$$\begin{array}{r} 6.25 \\ \times 8.1 \\ \hline 625 \\ 50000 \\ \hline -50.625 \end{array}$$

15) $-0.87(-2.1)$

$$\begin{array}{r} 2.1 \\ \times 0.87 \\ \hline 087 \\ 1740 \\ \hline 1.827 \end{array}$$

16) The price of one share of Acme Company declines \$3.50 per day for 4 days in a row. What was the overall change in the price in one share? Show all work.

$$\begin{array}{r} ^2 \\ -3.50 \\ \times ^4 \\ \hline -14.00 \end{array}$$

$- \$14$

17) Verizon offers an employee discount of \$13.75 of the bill per month for all employees. What is the total discount the employee receives after a year?

12 months

$$\begin{array}{r} -13.75 \\ \times ^{12} \\ \hline 12750 \\ 13750 \\ \hline -165.00 \end{array}$$

Discount of \$165

18) A plane is traveling at an altitude of 3000 ft. The plane then ascends to an altitude that is 1.5 times higher than the altitude he was cruising. What is the planes new altitude?

$$\begin{array}{r} 3000 \\ \times 1.5 \\ \hline 15000 \\ 30000 \\ \hline 4500.04 \end{array}$$

19) The temperature at noon is 0°C. The temperature changes by -2.3° every half hour for 3 hours. What is the temperature at 3:00 PM?

$$\begin{array}{r} -2.3 \\ \times ^6 \\ \hline 13.8 \end{array}$$

-13.8°C

