

Multiplying & Dividing Decimals

(Warm-Up) Find each product.

$$1) 2 \times 1.9 = \boxed{3.8}$$

$$\begin{array}{r} 1.9 \\ \times 2 \\ \hline 3.8 \end{array}$$

$$2) 2.3 \times 2.5 = \boxed{5.75}$$

$$\begin{array}{r} 2.3 \\ \times 2.5 \\ \hline 115 \\ + 460 \\ \hline 5.75 \end{array}$$

$$3) (5.4)(2.9) = \boxed{15.66}$$

$$\begin{array}{r} 5.4 \\ \times 2.9 \\ \hline 486 \\ + 1080 \\ \hline 15.66 \end{array}$$

$$4) (4.9)(5.63) = \boxed{27.587}$$

$$\begin{array}{r} 5.63 \\ \times 4.9 \\ \hline 5067 \\ + 22520 \\ \hline 27.587 \end{array}$$

$$5) 5.6 \cdot 0.4 = \boxed{2.24}$$

$$\begin{array}{r} 5.6 \\ \times 0.4 \\ \hline 224 \end{array}$$

$$6) 5.9 \cdot 1.4 = \boxed{8.26}$$

$$\begin{array}{r} 5.9 \\ \times 1.4 \\ \hline 236 \\ + 590 \\ \hline 8.26 \end{array}$$

(Warm-Up) Find each quotient.

$$7) 3.3 \div 5 = \boxed{0.66}$$

$$\begin{array}{r} 0.66 \\ 5 \overline{) 3.30} \\ \underline{-30} \\ 30 \\ \underline{-30} \\ 0 \end{array}$$

$$8) 4.8 \div 2.5 = \boxed{1.92}$$

$$\begin{array}{r} 1.92 \\ 2.5 \overline{) 4.800} \\ \underline{-25} \\ 230 \\ \underline{-225} \\ 50 \\ \underline{-50} \\ 0 \end{array}$$

$$9) 2 \div 0.8 = \boxed{2.5}$$

$$\begin{array}{r} 2.5 \\ 0.8 \overline{) 2.000} \\ \underline{-16} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

$$10) 3.8 \div 0.8 = \boxed{4.75}$$

$$\begin{array}{r} 4.75 \\ 0.8 \overline{) 3.800} \\ \underline{-32} \\ 60 \\ \underline{-56} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

Developing: Find each product.

$$11) -2.9 \times -2 = \boxed{5.8}$$

$$\begin{array}{r} 2.9 \\ \times 2 \\ \hline 5.8 \end{array}$$

$$12) 3 \times -2.301 = \boxed{-6.903}$$

$$\begin{array}{r} 2.301 \\ \times 3 \\ \hline 6.903 \end{array}$$

$$13) -0.9 \times -4.4 = \boxed{3.96}$$

$$\begin{array}{r} 4.4 \\ \times 0.9 \\ \hline 3.96 \end{array}$$

$$14) 4.9 \times -3.8 = \boxed{-18.62}$$

$$\begin{array}{r} 4.9 \\ \times 3.8 \\ \hline 392 \\ + 1470 \\ \hline 1862 \end{array}$$

$$15) -7.3 \times 2.5 = \boxed{-18.25}$$

$$\begin{array}{r} 7.3 \\ \times 2.5 \\ \hline 365 \\ + 1460 \\ \hline 18.25 \end{array}$$

$$16) -2.99 \times 5.4 = \boxed{-16.146}$$

$$\begin{array}{r} 2.99 \\ \times 5.4 \\ \hline 1196 \\ + 14950 \\ \hline 16.146 \end{array}$$

Find each quotient.

$$17) 2.1 \div -7 = \boxed{-0.3}$$

$$\begin{array}{r} 0.3 \\ 7 \overline{) 2.1} \\ \underline{-2.1} \\ 0 \end{array}$$

$$18) -5.7 \div -3 = \boxed{1.9}$$

$$\begin{array}{r} 1.9 \\ 3 \overline{) 5.7} \\ \underline{-3} \downarrow \\ 27 \\ \underline{-27} \\ 0 \end{array}$$

$$19) 5.4 \div -0.1 = \boxed{-54}$$

$$\begin{array}{r} 54. \\ 0.1 \overline{) 5.4} \\ \underline{-5} \downarrow \\ 04 \\ \underline{-4} \\ 0 \end{array}$$

$$20) -6.3 \div 0.6 = \boxed{-10.5}$$

$$\begin{array}{r} 10.5 \\ 0.6 \overline{) 6.30} \\ \underline{-6} \downarrow \downarrow \\ 030 \\ \underline{-30} \\ 0 \end{array}$$

$$21) -3.4 \div -2.5 = \boxed{1.36}$$

$$\begin{array}{r} 1.36 \\ 2.5 \overline{) 3.400} \\ \underline{-2.5} \downarrow \\ 890 \\ \underline{-75} \downarrow \\ 150 \\ \underline{-150} \\ 0 \end{array}$$

$$22) -7.3 \div -2.5 = \boxed{2.92}$$

$$\begin{array}{r} 2.92 \\ 2.5 \overline{) 7.300} \\ \underline{-5.0} \downarrow \\ 230 \\ \underline{-225} \downarrow \\ 50 \\ \underline{-50} \\ 0 \end{array}$$

Proficient: Find each product.

$$23) (-4.1)(7.6) = \boxed{-31.16}$$

$$\begin{array}{r} 4.1 \\ \times 7.6 \\ \hline 246 \\ + 2870 \\ \hline 31.16 \end{array}$$

$$24) (-3.4)(-0.7) = \boxed{2.38}$$

$$\begin{array}{r} 3.4 \\ \times 0.7 \\ \hline 238 \end{array}$$

$$25) (-9.924)(0.12) = \boxed{-1.19088}$$

$$\begin{array}{r} 9.924 \\ \times 0.12 \\ \hline 19848 \\ + 99240 \\ \hline 1.19088 \end{array}$$

$$26) (9.8)(-0.4) = \boxed{-3.92}$$

$$\begin{array}{r} 9.8 \\ \times 0.4 \\ \hline 392 \end{array}$$

$$27) (8.5)(-4) = \boxed{-34}$$

$$\begin{array}{r} 8.5 \\ \times 4 \\ \hline 34.0 \end{array}$$

$$28) (-5.629)(-5.479) = \boxed{30.841291}$$

$$\begin{array}{r} 5.629 \\ \times 5.479 \\ \hline 50661 \\ 394030 \\ 2251600 \\ + 28145000 \\ \hline 30.841291 \end{array}$$

Find each quotient.

$$29) -3.6 \div 1.5 = \boxed{-2.4}$$

$$\begin{array}{r} 2.4 \\ 1.5 \overline{) 3.600} \\ \underline{-30} \\ 60 \\ \underline{-60} \\ 0 \end{array}$$

$$30) -9.4 \div 2.5 = \boxed{-3.76}$$

$$\begin{array}{r} 3.76 \\ 2.5 \overline{) 9.400} \\ \underline{-75} \\ 190 \\ \underline{-175} \\ 150 \\ \underline{-150} \\ 0 \end{array}$$

$$31) 1.8 \div -0.4 = \boxed{-4.5}$$

$$\begin{array}{r} 4.5 \\ 0.4 \overline{) 1.800} \\ \underline{-16} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

$$32) -4.9 \div 2.8 = \boxed{-1.75}$$

$$\begin{array}{r} 1.75 \\ 2.8 \overline{) 4.900} \\ \underline{-28} \\ 210 \\ \underline{-196} \\ 140 \\ \underline{-140} \\ 0 \end{array}$$

$$\begin{array}{r} 28 \\ + 28 \\ \hline 56 \\ + 28 \\ \hline 84 \\ + 28 \\ \hline 112 \\ + 28 \\ \hline 140 \end{array}$$

$$33) -8.1 \div 0.5 = \boxed{-16.2}$$

$$\begin{array}{r} 16.2 \\ 0.5 \overline{) 8.10} \\ \underline{-5} \\ 31 \\ \underline{-30} \\ 10 \\ \underline{-10} \\ 0 \end{array}$$

$$34) 2.666 \div -0.2 = \boxed{-13.33}$$

$$\begin{array}{r} 13.33 \\ 0.2 \overline{) 2.666} \\ \underline{-2} \\ 66 \\ \underline{-66} \\ 066 \\ \underline{-66} \\ 0 \end{array}$$

Extending: Find each product.

$$35) (-2.2)(-0.8)(0.4) = \boxed{0.704}$$

$$\begin{array}{r} 2.2 \\ \times 0.8 \\ \hline 1.76 \end{array} \quad \begin{array}{r} 1.76 \\ \times 0.4 \\ \hline .704 \end{array}$$

$$36) (-0.3)(4.2)(6.1) = \boxed{-7.686}$$

$$\begin{array}{r} 4.2 \\ \times 0.3 \\ \hline 1.26 \end{array} \quad \begin{array}{r} 1.26 \\ \times 6.1 \\ \hline 126 \\ +7560 \\ \hline 7.686 \end{array}$$

$$37) (-0.4)(2)(3.15) = \boxed{-2.52}$$

$$\begin{array}{r} 0.4 \\ \times 2 \\ \hline 0.8 \end{array} \quad \begin{array}{r} 3.15 \\ \times 0.8 \\ \hline 2520 \end{array}$$

$$38) (5.3)(-2.99)(-2.1)(-1.8) = \boxed{-59.90166}$$

$$\begin{array}{r} 2.99 \\ \times 5.3 \\ \hline 897 \\ +14950 \\ \hline 15847 \end{array} \quad \begin{array}{r} 15.847 \\ \times 2.1 \\ \hline 15847 \\ +316940 \\ \hline 332787 \end{array} \quad \begin{array}{r} 33.2787 \\ \times 1.8 \\ \hline 2662296 \\ +3327870 \\ \hline 5990166 \end{array}$$

$$39) (6.7)(-2.1)(7.3)(-3.9) = \boxed{400.5729}$$

$$\begin{array}{r} 6.7 \\ \times 2.1 \\ \hline 1340 \\ +1407 \\ \hline 14.07 \end{array} \quad \begin{array}{r} 14.07 \\ \times 7.3 \\ \hline 4221 \\ +98490 \\ \hline 102.711 \end{array} \quad \begin{array}{r} 102.711 \\ \times 3.9 \\ \hline 924399 \\ +3081330 \\ \hline 4005729 \end{array}$$

$$40) (2.4)(-7.2)(-2.4)(3.9) = \boxed{161.7408}$$

$$\begin{array}{r} 2.4 \\ \times 7.2 \\ \hline 148 \\ +1680 \\ \hline 17.28 \end{array} \quad \begin{array}{r} 17.28 \\ \times 2.4 \\ \hline 6912 \\ +34560 \\ \hline 41.472 \end{array} \quad \begin{array}{r} 41.472 \\ \times 3.9 \\ \hline 373248 \\ +1244160 \\ \hline 161.7408 \end{array}$$

Find each quotient.

$$41) 8.4 \div -1 = \boxed{-8.4}$$

$$42) -5.7 \div -3 = \boxed{1.9}$$

$$\begin{array}{r} 1.9 \\ 3 \overline{) 5.7} \\ \underline{-3} \\ 27 \\ \underline{-27} \\ 0 \end{array}$$

$$43) \frac{-8.8}{3.2} = \boxed{-2.75}$$

$$\begin{array}{r} 2.75 \\ 3.2 \overline{) 8.800} \\ \underline{64} \\ 240 \\ \underline{224} \\ 160 \\ \underline{-160} \\ 0 \end{array}$$

$$44) \frac{3.3}{-1.1} = \boxed{-3}$$

$$\begin{array}{r} 3. \\ 1.1 \overline{) 3.30} \\ \underline{-33} \\ 0 \end{array}$$

$$45) \frac{-3.5}{-2.5} = \boxed{1.4}$$

$$\begin{array}{r} 1.4 \\ 2.5 \overline{) 3.500} \\ \underline{-25} \\ 100 \\ \underline{-100} \\ 0 \end{array}$$

$$46) \frac{-8.1}{-2.5} = \boxed{3.24}$$

$$\begin{array}{r} 3.24 \\ 2.5 \overline{) 8.100} \\ \underline{-75} \\ 60 \\ \underline{-50} \\ 100 \\ \underline{-100} \\ 0 \end{array}$$