Name: School: Grade: Class:

3-8 Dividing Decimals by Whole Numbers - Practice and Problem Solving

Divide. Round to the nearest tenth if necessary.

9. $36.8 \div 2$

$$\begin{array}{r} 18.4 \\ 2\overline{)36.8} \\ -2 \\ \hline 16 \\ -16 \\ \hline 0\ 8 \\ -\ \ 8 \\ \hline 0 \end{array}$$

11. $124.2 \div 9$

$$\begin{array}{r} 13.8 \\ 9\overline{)124.2} \\ -9 \\ \hline 34 \\ -27 \\ \hline 7\ 2 \\ -7\ 2 \\ \hline 0 \end{array}$$

13. $6.27 \div 4$

$$\begin{array}{r} 1.56 \\ 4\overline{)6.27} \\ -4 \\ \hline 2\ 2 \\ -2\ 0 \\ \hline 27 \\ -24 \\ \hline 3 \end{array}$$

1.56 rounds to 1.6.

Name: School: Grade: Class:

15. $10.22 \div 14$

$$
\begin{array}{r}
0.73 \\
14\overline{)10.22} \\
-98 \\
\hline
42 \\
-42 \\
\hline
0
\end{array}
$$

0.73 rounds to 0.7.

17. $59.84 \div 32$

$$
\begin{array}{r}
1.87 \\
32\overline{)59.84} \\
-32 \\
\hline
278 \\
-256 \\
\hline
224 \\
224 \\
\hline
0
\end{array}
$$

1.87 rounds to 1.9.

19. $751.2 \div 25$

$$
\begin{array}{r}
30.04 \\
25\overline{)751.20} \\
-75 \\
\hline
01 \\
-\ 0 \\
\hline
1\ 2 \\
-\ \ 0 \\
\hline
1\ 20 \\
-1\ 00 \\
\hline
20
\end{array}
$$

30.04 rounds to 30.0.

Name: School: Grade: Class:

21. **BUILDINGS** Find the average height of the buildings shown in the table.

World's Tallest Buildings (thousands of feet)				
1.667	1.483	1.483	1.451	1.381

First, add up all the heights of the buildings.

$$\begin{array}{r} 1.667 \\ 1.483 \\ 1.483 \\ 1.451 \\ +1.381 \\ \hline 7.465 \end{array}$$

Then, divide by the number of buildings displayed in the table.

$$\begin{array}{r} 1.493 \\ 5\overline{)7.465} \\ -\ 7 \\ \hline 24 \\ -20 \\ \hline 46 \\ -45 \\ \hline 15 \\ -15 \\ \hline 0 \end{array}$$

The average height is 1.493 thousand feet.

23. **FOOD** The Student Council is raising money by selling bottled water at a band competition. The table shows the prices for different brands. Which brand is the best buy? Explain your reasoning.

Cost of Bottled Water (20-oz bottles)		
Brand A	6-pack	$3.45
Brand B	12-pack	$5.25
Brand C	24-pack	$10.99

Divide the cost of each pack by the number of bottles per pack. The cost of each bottle of water for Brand B is about $0.44. For Brand A the cost is about $0.58 and for Brand C the cost is about $0.46. So, Brand B has the best cost per bottle.

STATISTICS Find the mean for each set of data.

Name: School: Grade: Class:

25. 22.6, 24.8, 25.4, 26.9

First add the data.

$$\begin{array}{r} 22.6 \\ 24.8 \\ 25.4 \\ +26.9 \\ \hline 99.7 \end{array}$$

Now divide the result by the number of data, 4.

$$\begin{array}{r} 24.925 \\ 4\overline{)99.700} \\ -8 \\ \hline 19 \\ -16 \\ \hline 3\ 7 \\ -3\ 6 \\ \hline 10 \\ -\ 8 \\ \hline 20 \\ -20 \\ \hline 0 \end{array}$$

The mean is 24.925.

27. **OPEN ENDED** Create a set of data for which the mean is 5.5.

Sample answer: {5.4, 5.5, 5.6}

29. **FIND THE ERROR** Felisa and Tabitha are finding 11.2 ÷ 14. Who is correct? Explain your reasoning.

Felisa	Tabitha
$\begin{array}{r} 8. \\ 14\overline{)11.2} \\ -112 \\ \hline 0 \end{array}$	$\begin{array}{r} 0.8 \\ 14\overline{)11.2} \\ -112 \\ \hline 0 \end{array}$

The decimal point in the answer should be placed directly above the decimal point in the dividend. Tabitha is correct.

Name: School: Grade: Class:

31. **SHORT RESPONSE** Tanner and three neighborhood friends are buying a basketball hoop that costs $249.84. If the cost is divided equally, how much will each person pay in dollars?

Divide the cost of the basketball hoop by 4.
249.84 ÷ 4 = 62.46
Each person pays $62.46.

Multiply.

33. 2.4 × 5.7

```
   2.4
 × 5.7
 -----
  1 68
 12 0
 -----
 13.68
```

35. 0.32(8.1)

```
   0.32
 × 8.1
 -----
   032
 2 56
 -----
 2.592
```

37. What is the product of 4.156 and 12?

```
   4.156
 ×  12
 -------
   8 312
 41 56
 -------
 49.872
```

For Exercises 38–40, write each power as a product of the same factor. Then find the value.

39. James ran the 220-yard dash in 6^2 seconds.

6 × 6; 36 s

PREREQUISITE SKILL Divide.

Name: School: Grade: Class:

41. $25 \div 5$

$$\begin{array}{r} 5 \\ 5\overline{)25} \\ \underline{-25} \\ 0 \end{array}$$

43. $114.8 \div 14$

$$\begin{array}{r} 8.2 \\ 14\overline{)114.8} \\ \underline{-112} \\ 28 \\ \underline{-28} \\ 0 \end{array}$$