Name_____ Date_____

2.1 Practice A

Multiply. Write the answer in simplest form.

1. $\dfrac{3}{5} \times \dfrac{1}{4}$

2. $\dfrac{1}{3} \times \dfrac{4}{7}$

3. $\dfrac{2}{3} \times \dfrac{7}{11}$

4. $\dfrac{6}{7} \times \dfrac{5}{6}$

5. $\dfrac{2}{5} \times \dfrac{5}{8}$

6. $\dfrac{8}{15} \times \dfrac{3}{10}$

7. $\dfrac{2}{9} \times \dfrac{12}{13}$

8. $\dfrac{7}{8} \times 12$

9. $4 \times \dfrac{5}{12}$

10. $\dfrac{4}{9} \times \dfrac{4}{9}$

11. $\dfrac{3}{14} \times \dfrac{7}{9}$

12. $\dfrac{8}{9} \times \dfrac{24}{11}$

13. $2\dfrac{2}{5} \times \dfrac{1}{4}$

14. $5\dfrac{3}{5} \times \dfrac{5}{7}$

15. $5\dfrac{1}{2} \times \dfrac{7}{11}$

16. $6\dfrac{2}{3} \times 12$

17. $4\dfrac{2}{5} \times 1\dfrac{7}{8}$

18. $9 \times 2\dfrac{2}{3}$

19. $4\dfrac{4}{9} \times \dfrac{3}{8}$

20. $3\dfrac{5}{8} \times 12$

21. $4\dfrac{2}{3} \times \dfrac{3}{14}$

22. Describe and correct the error in finding the product.

$$\times \quad 3\dfrac{7}{8} \times 6\dfrac{2}{5} = 18\dfrac{14}{40} = 18\dfrac{7}{20}$$

23. Two-fifths of the students in your class are in the band. Of these, one-fourth play the saxophone.

a. What fraction of your class plays the saxophone?

b. There are 30 students in your class. How many students in your class play the saxophone?

24. Five years ago, an alligator was $2\dfrac{1}{6}$ feet long. Today, the alligator is three times longer. How long is the alligator now?

25. A poster is $8\dfrac{1}{2}$ inches by 11 inches. You enlarge the poster by increasing each dimension by a factor of $2\dfrac{1}{2}$. What is the area of the new poster?

Name_____ Date_____

2.2 Practice A

Write the reciprocal of the number.

1. $\dfrac{5}{8}$

2. 6

3. $\dfrac{1}{3}$

4. $\dfrac{7}{4}$

Divide. Write the answer in simplest form.

5. $\dfrac{1}{6} \div \dfrac{1}{3}$

6. $\dfrac{3}{4} \div 6$

7. $\dfrac{3}{5} \div \dfrac{2}{15}$

8. $10 \div \dfrac{2}{7}$

9. $\dfrac{3}{8} \div \dfrac{9}{16}$

10. $\dfrac{5}{9} \div 15$

11. $\dfrac{10}{27} \div \dfrac{2}{3}$

12. $\dfrac{18}{25} \div \dfrac{8}{15}$

13. $\dfrac{7}{12} \div 14$

14. Describe and correct the error in finding the quotient.

$$\times \quad \dfrac{3}{4} \div 6 = \dfrac{3}{4} \div \dfrac{6}{1} = \dfrac{18}{4} = \dfrac{9}{2} = 4\dfrac{1}{2}$$

Determine whether the numbers are reciprocals. If not, write the reciprocal of each number.

15. $\dfrac{5}{8}, \dfrac{16}{10}$

16. $\dfrac{1}{12}, 12$

17. $\dfrac{2}{3}, \dfrac{12}{18}$

18. $\dfrac{4}{7}, \dfrac{7}{8}$

Copy and complete the statement.

19. $\dfrac{10}{7} \times \underline{\ ?\ } = 1$

20. $8 \div \underline{\ ?\ } = 24$

21. You have $\dfrac{2}{3}$ of a pizza. You divide the remaining pizza into 4 equal pieces. What fraction of the pizza is each piece?

22. You have five quarts of paint. It takes $\dfrac{5}{8}$ quart to paint each chair you are asked to paint. How many chairs can you paint?

23. Is the reciprocal of a fraction always a whole number? Explain.

Name_____ Date_____

2.3 Practice A

Divide. Write the answer in simplest form.

1. $2\dfrac{1}{2} \div \dfrac{1}{4}$

2. $4\dfrac{1}{3} \div \dfrac{2}{3}$

3. $6\dfrac{2}{3} \div \dfrac{5}{6}$

4. $8\dfrac{1}{3} \div 2\dfrac{2}{9}$

5. $9\dfrac{4}{5} \div 7$

6. $3\dfrac{5}{9} \div 16$

7. $\dfrac{8}{27} \div 4\dfrac{2}{9}$

8. $21 \div 5\dfrac{1}{4}$

9. $9\dfrac{3}{5} \div 12$

10. $3\dfrac{3}{4} \div 5\dfrac{1}{4}$

11. $7\dfrac{1}{2} \div 1\dfrac{3}{4}$

12. $6\dfrac{2}{9} \div 6\dfrac{2}{3}$

13. Describe and correct the error in finding the quotient.

$$\times \quad 8 \div 2\dfrac{3}{4} = \dfrac{1}{8} \div \dfrac{11}{4} = \dfrac{1}{8} \times \dfrac{4}{11} = \dfrac{1}{22}$$

Evaluate the expression. Write the answer in simplest form.

14. $3\dfrac{3}{8} \div 4\dfrac{7}{8} + 3$

15. $4\dfrac{1}{2} - \dfrac{3}{4} \div 2\dfrac{3}{8}$

16. $3\dfrac{3}{5} - \dfrac{1}{2} \div 4\dfrac{3}{8}$

17. $\dfrac{2}{3} \times \dfrac{5}{8} \div 3\dfrac{7}{12}$

18. How many $6\dfrac{1}{4}$-inch pieces of fabric can be cut from a 75-inch roll?

19. How many times heavier is a $16\dfrac{1}{2}$-pound rock than a $10\dfrac{1}{2}$-pound rock?

20. How many $2\dfrac{1}{2}$-acre plots can be made out of a 35-acre field?

21. A bag contains 36 cups of flour. How many loaves of bread can be made if each loaf takes $5\dfrac{1}{3}$ cups? Is there any flour left over? If so, how much?

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2.4 Practice A

Add.

1. 6.58 + 2.436

2. 1.8 + 4.307

3. 11.415 + 15.32

4. 16.75 + 14.349

5. 18.741 + 14.113

6. 12.799 + 17.301

Subtract.

7. 5.64 − 2.31

8. 9.385 − 5.216

9. 9.75 − 6.523

10. 16.435 − 12.144

11. 18.908 − 14.76

12. 10.8 − 8.752

13. It costs $5.52 to park in parking lot A and $3.75 to park in parking lot B. How much more does it cost to park in parking lot A?

Evaluate the expression.

14. 7.85 + 12.19 + 5.401

15. 9.112 + 7.649 − 11.52

16. 16.072 − 13.18 + 3.982

17. 18.2 − 14.33 + 9.757

18. 17.816 − 8.623 − 5.94

19. 6.58 + 7.64 − 10.006

20. Write two decimals that have a sum of 16.825.

21. Write two decimals that have a difference of 16.825.

22. To find the girth of a suitcase, add the length, width, and depth.

   a. Your suitcase has a length of 24.5 inches, a width of 14.25 inches, and a depth of 6.875 inches. Find the girth of your suitcase.

   b. In order to store your suitcase in the overhead compartment, the girth must not exceed 45 inches. Will you be able to store your suitcase in the overhead compartment? Explain.

23. You are saving money for a new bicycle, which costs $85.99. So far you have saved $47.52. How much more money do you need before you can purchase the new bicycle?

24. A triangle has sides of length 15.463 centimeters, 11.34 centimeters, and 20.875 centimeters. What is the perimeter of the triangle?

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2.5 Practice A

Copy the problem and place the decimal point in the product.

1. 2.6
    × 7.9
    2 0 5 4

2. 8.8 3
    × 0.4 2
    3 7 0 8 6

3. 9.4 4
    × 1.9 5
    1 8 4 0 8 0

Multiply. Use estimation to check your answer.

4. 3.2×6

5. 5.1×8

6. 0.34×14

7. 8.4×3

8. 6.2×7

9. 1.3×3

10. 5.4×2.2

11. 6.13×15

12. 100×0.092

13. Describe and correct the error in the solution.

    ✗   0.0004
        ×   8
        0.032

14. An international long-distance phone call costs $0.79 per minute. How much will a 22-minute call cost?

Multiply.

15. 0.3
     × 0.4

16. 0.05
     × 0.9

17. 0.34
     × 0.7

18. 1.46×0.5

19. 19.4×4.8

20. 5.12×0.23

21. 2.024×1.35

22. 0.0032×16.4

23. 2.965×3.208

24. The area of Pennsylvania is 46,055 square miles. The area of Florida is about 1.428 times larger than Pennsylvania. What is the area of Florida to the nearest square mile?

25. You buy three baskets of fruit at $5.65 per basket. You hand the cashier a $20 bill. How much change will you get back?

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2.6 Practice A

Rewrite the problem so that the divisor is a whole number.

1. $4.2\overline{)23.1}$ 2. $0.15\overline{)12.87}$ 3. $0.535\overline{)8.76}$

Divide. Use estimation to check your answer.

4. $7\overline{)1.4}$ 5. $5\overline{)2.65}$ 6. $6\overline{)24.6}$

7. $21.6 \div 9$ 8. $53.6 \div 8$ 9. $0.256 \div 4$

10. Describe and correct the error in finding the quotient.

$$
\begin{array}{r}
2.7 \\
5\overline{)1.3\ 5} \\
-1\ 0 \\
\hline
3\ 5 \\
-3\ 5 \\
\hline
0
\end{array}
$$

11. You and three of your friends go parasailing for $128.40. You split the cost evenly. How much does each person pay?

Evaluate the expression.

12. $20.6 + 19.4 \div 2$ 13. $23.43 \div 3 - 2.5$ 14. $18.6 \div 3 \times 6$

15. $9.3 \div 3 + 7.6$ 16. $48.02 \div 7 \div 2$ 17. $17.5 \times (2.4 \div 3)$

Divide. Check your answer.

18. $0.5\overline{)13.5}$ 19. $2.5\overline{)45.5}$ 20. $5.6\overline{)16.8}$

21. $8.82 \div 0.6$ 22. $75 \div 2.5$ 23. $4.08 \div 1.2$

24. $2.94 \div 0.21$ 25. $90.2 \div 0.22$ 26. $357 \div 0.007$

27. An MP3 player can hold 350 hours of music. Each song on an MP3 player is about 2.5 minutes in length. About how many songs can the MP3 player store?

28. A piece of paper is 0.0075 inch thick. How many sheets of paper will be in a stack that is 2.25 inches high?

Divide. Round to the nearest hundredth if necessary.

29. $25.6 \div 0.7$ 30. $19.43 \div 0.003$ 31. $56.22 \div 7.2$