

2.1

Practice B

Multiply. Write the answer in simplest form.

1. $\frac{1}{6} \times \frac{5}{9}$

2. $\frac{2}{5} \times \frac{7}{8}$

3. $\frac{6}{7} \times \frac{2}{9}$

4. $18 \times \frac{5}{6}$

5. $\frac{5}{24} \times \frac{8}{15}$

6. $\frac{16}{7} \times \frac{21}{8}$

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

$$\times \frac{5}{6} \times \frac{5}{6} = \frac{5 \times 5}{6} = \frac{25}{6} = 4\frac{1}{6}$$

8. One-half of your CDs are scratched. Of those, one-fifth will not play properly. You have 40 CDs. How many of them will not play properly?

Multiply. Write the answer in simplest form.

9. $2\frac{11}{12} \times \frac{2}{5}$

10. $1\frac{3}{4} \times \frac{20}{21}$

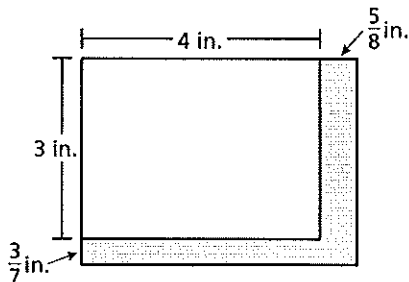
11. $4\frac{9}{10} \times 1\frac{1}{7}$

12. $28 \times 8\frac{2}{7}$

13. $5\frac{5}{12} \times 2\frac{2}{5}$

14. $8\frac{1}{3} \times 4\frac{1}{2}$

15. Find the area of the shaded region. Explain how you found the area.



Multiply. Write the answer in simplest form.

16. $\frac{1}{4} \times \frac{5}{8} \times \frac{16}{25}$

17. $\left(\frac{2}{7}\right)^3$

18. $\left(\frac{5}{7}\right)^2 \times \left(\frac{3}{5}\right)^2$

19. $\frac{3}{5} \times 6\frac{3}{4} \times 2\frac{2}{9}$

20. $1\frac{7}{8} \times 12 \times 3\frac{2}{3}$

21. $4\frac{1}{6} \times 2\frac{2}{7} \times 7\frac{1}{5}$

2.2 Practice B

Write the reciprocal of the number.

1. $\frac{7}{12}$

2. $\frac{1}{10}$

3. 15

4. $\frac{21}{5}$

Divide. Write the answer in simplest form.

5. $\frac{3}{8} \div \frac{15}{16}$

6. $9 \div \frac{6}{5}$

7. $\frac{2}{3} \div \frac{2}{9}$

8. $\frac{4}{15} \div 12$

9. $\frac{3}{7} \div \frac{9}{14}$

10. $\frac{8}{15} \div 20$

11. $\frac{3}{4} \div \frac{7}{12}$

12. $18 \div \frac{4}{7}$

13. $\frac{16}{25} \div \frac{3}{5}$

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

$$\times \quad \frac{3}{5} \div \frac{9}{10} = \frac{5}{3} \cdot \frac{10}{9} = \frac{50}{27} = 1\frac{23}{27}$$

Without finding the quotient, copy and complete the statement using $<$, $>$, or $=$. Explain your reasoning.

15. $4 \div \frac{6}{7} \underline{\quad ? \quad} 4$

16. $1 \div \frac{2}{3} \underline{\quad ? \quad} 1$

17. $\frac{4}{5} \div \frac{9}{10} \underline{\quad ? \quad} \frac{4}{5}$

Evaluate the expression. Write the answer in simplest form.

18. $\frac{1}{5} \div 5 \div 3$

19. $8 \div \frac{4}{5} + \frac{7}{9}$

20. $\frac{11}{24} \cdot \left(\frac{5}{16} \div \frac{5}{12} \right)$

21. How many times larger is a 10-pound dog than a hamster weighing $\frac{5}{8}$ pound?

22. A digital camera memory card is $\frac{1}{4}$ full. The card is $\frac{2}{3}$ full when 375 more pictures have been taken.

- How many pictures can the memory card hold?
- How many pictures were originally on the memory card?

2.3 Practice B

Divide. Write the answer in simplest form.

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

2. $7\frac{3}{4} \div 1\frac{5}{8}$

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

4. $10 \div 2\frac{2}{9}$

5. $16\frac{1}{3} \div 14$

6. $8\frac{2}{5} \div \frac{9}{10}$

7. $\frac{3}{4} \div 8\frac{1}{4}$

8. $6\frac{1}{2} \div 3\frac{3}{4}$

9. $18 \div 4\frac{1}{5}$

10. $\frac{7}{16} \div 5\frac{1}{4}$

11. $10\frac{2}{3} \div 3\frac{1}{5}$

12. $9\frac{4}{9} \div 5\frac{2}{3}$

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

$$\times \quad 8\frac{1}{3} \div 15 = \frac{25}{3} \div 15 = 15 \times \frac{3}{25} = \frac{45}{25} = \frac{9}{5} = 1\frac{4}{5}$$

Evaluate the expression. Write the answer in simplest form.

14. $4\frac{1}{5} \div 2\frac{1}{10} - \frac{1}{2}$

15. $10\frac{1}{8} \div 3\frac{1}{8} + \frac{4}{5}$

16. $2\frac{1}{6} \div 3 + 5\frac{1}{2}$

17. $4\frac{3}{8} \div \frac{5}{16} \times \frac{3}{4}$

18. $2\frac{3}{7} \div \frac{2}{3} \times \frac{3}{4}$

19. $5\frac{1}{3} + 2\frac{7}{12} \div \frac{3}{4}$

20. $9\frac{1}{3} \times 4\frac{1}{2} + 3\frac{2}{5}$

21. $4\frac{1}{9} \times 3\frac{2}{3} \div 1\frac{2}{9}$

22. $6\frac{3}{4} \div \left(2\frac{3}{5} \times 1\frac{2}{13}\right)$

23. How many $3\frac{3}{4}$ -inch wires can be cut from a spool of wire that is 100 inches long? Will there be any wire left over? If so, how much?

24. A bag of fertilizer that weighs $18\frac{3}{4}$ pounds can cover 5000 square feet. How many pounds of fertilizer will be needed to cover 27,000 square feet? How many bags of fertilizer are needed? Explain how you found your answer.