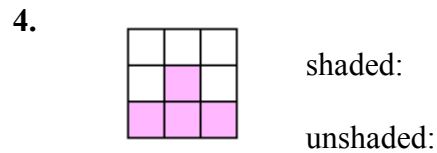
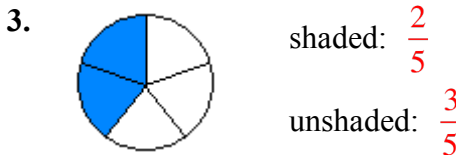
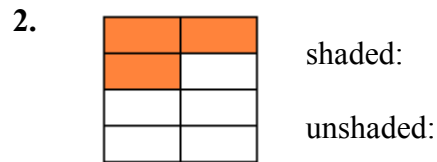
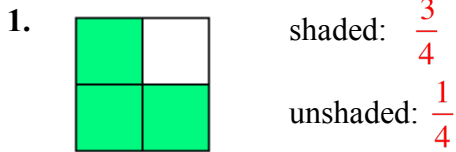


1.1 Fractions

Solutions

Write the fraction representing the shaded amount, and the fraction representing the unshaded amount.



Simplify each fraction completely (reduce to lowest terms):

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

6. $\frac{15}{35}$

7. $\frac{14}{49} = \frac{14 \div 7}{49 \div 7} = \frac{2}{7}$

8. $\frac{48}{72}$

Write the requested fraction/s:

9. A professional basketball player made 7 free-throws out of 11 attempts. What fraction of the free-throws did he make?

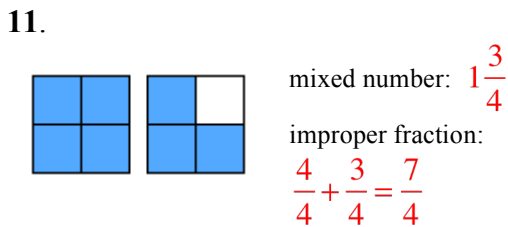
$$\frac{\text{free-throws made}}{\text{free-throws attempted}} = \frac{7}{11}$$

10. A professional basketball player made 8 free-throws in 11 attempts.

(a) What fraction of the free-throws did he make?

(b) What fraction of the free-throws did he miss?

Write each shaded amount as both mixed number and as an improper fraction:



Answers: 1. $\frac{3}{4}, \frac{1}{4}$; 3. $\frac{2}{5}, \frac{3}{5}$; 5. $\frac{3}{4}$; 7. $\frac{2}{7}$; 9. $\frac{7}{11}$; 11. $1\frac{3}{4}, \frac{7}{4}$

| | |
|--|-------------------------------------|
| Change each improper fraction to a mixed number or whole number: | |
| 13. $\frac{5}{3} \Rightarrow 3 \overline{)5} \begin{array}{l} 1 \text{ R } 2 \\ \underline{3} \\ 2 \end{array} \Rightarrow 1\frac{2}{3}$ | 14. $\frac{23}{4}$ |
| Change each mixed number to an improper fraction. | |
| 15. $1\frac{4}{5} = \frac{5 \cdot 1 + 4}{5} = \frac{9}{5}$ | 16. $2\frac{1}{3}$ |
| Add, subtract, multiply, or divide. Reduce answers if possible. | |
| 17. $\frac{7}{12} + \frac{1}{12} = \frac{8}{12} = \frac{8 \div 4}{12 \div 4} = \frac{2}{3}$ | 18. $\frac{7}{8} - \frac{3}{8}$ |
| 19. $\frac{7}{8} - \frac{5}{12} = \frac{7 \cdot 3}{8 \cdot 3} - \frac{5 \cdot 2}{12 \cdot 2}$ $= \frac{21}{24} - \frac{10}{24} = \frac{11}{24}$ | 20. $\frac{7}{12} - \frac{1}{3}$ |
| 21. $\frac{3}{5} \cdot \frac{2}{9} = \frac{3^1 \cdot 2}{5 \cdot 9^3} = \frac{1 \cdot 2}{5 \cdot 3} = \frac{2}{15}$ | 22. $\frac{6}{8} \cdot \frac{4}{5}$ |
| 23. $\frac{3}{8} \div \frac{5}{12} = \frac{3 \cdot 12}{8 \cdot 5} = \frac{3 \cdot \cancel{12^3}}{8^2 \cdot 5} = \frac{3 \cdot 3}{2 \cdot 5} = \frac{9}{10}$ | 24. $\frac{7}{9} \div \frac{2}{3}$ |
| 25. $5\frac{3}{5} \div 4 = \frac{5 \cdot 5 + 3}{5} \div \frac{4}{1} = \frac{28}{5} \cdot \frac{1}{4}$ $= \frac{\cancel{28^7}}{5} \cdot \frac{1}{4^1} = \frac{7 \cdot 1}{5 \cdot 1} = \frac{7}{5}$ | 26. $10 \div 2\frac{1}{2}$ |
| Answers: 13. $1\frac{2}{3}$; 15. $\frac{9}{5}$; 17. $\frac{2}{3}$; 19. $\frac{11}{24}$; 21. $\frac{2}{15}$; 23. $\frac{9}{10}$; 25. $\frac{7}{5}$ | |

| | |
|--|---|
| <p>27. In order to run electric power to his house, Jason must dig a trench $\frac{5}{8}$ of a mile long. If he has already dug $\frac{3}{10}$ of a mile of trench, how much does he have left to dig?</p> $\frac{5}{8} - \frac{3}{10} = \frac{5 \cdot 5}{8 \cdot 5} - \frac{3 \cdot 4}{10 \cdot 4} = \frac{25}{40} - \frac{12}{40} = \frac{13}{40} \text{ mile}$ | <p>28. Jennifer mixes $1\frac{3}{8}$ pounds of cashews, $2\frac{1}{2}$ pounds of peanuts, and $2\frac{1}{4}$ pounds of almonds, how many pounds of mixed nuts will it make?</p> |
| <p>29. If $\frac{3}{4}$ pound of fudge candy is cut into 12 equal pieces, how much will each piece weigh?</p> $\frac{3}{4} \div 12 = \frac{3}{4} \cdot \frac{1}{12} = \frac{3^1}{4} \cdot \frac{1}{12^4} = \frac{1}{16} \text{ pound}$ | <p>30. Maria ran $1\frac{3}{8}$ miles every day for 12 days. How many total miles did she run during the 12 day period?</p> |
| <p>Answers: 27. $\frac{13}{40}$ mile ; 29. $\frac{1}{16}$ pound</p> | |