

SHOW ALL WORK to receive full credit.

Use the percent Formula $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$ to solve the following. Round money answers to the nearest cent (hundredth), all others to the nearest tenth. (2 points each)

1. 80 is _____% of 321 2. 60% of 500 is _____ 3. 138 out of 150 is _____%

Solve the following equations. Fraction answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (4 points each)

4. $17x - 4 = 14$

5. $2x + 4 = 9x + 18$

6. $4x + 6 - 2x + 7 = -2(x - 8)$

7. $\frac{4}{x+3} = \frac{7}{3x-1}$

Change the following improper fractions to mixed numbers. (2 points each)

8. $\frac{16}{5} =$

9. $\frac{84}{11} =$

Change the following mixed numbers to improper fractions. (2 points each)

10. $6\frac{1}{5} =$

11. $12\frac{1}{2} =$

Multiply or divide the following fractions. Answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (2 points each)

12. $\frac{5}{6} \cdot \frac{8}{15} =$

13. $3\frac{2}{5} \cdot \frac{25}{34} =$

14. $20 \cdot \frac{3}{10} =$

15. $\frac{2}{5} \div \frac{8}{15} =$

16. $\frac{8}{9} \div 4 =$

17. $1\frac{5}{9} \div 4\frac{2}{3} =$

Add or subtract the following fractions. Answers must be reduced to lowest terms and written as mixed numbers where necessary. (2 points each).

18. $\frac{7}{20} + \frac{8}{20} =$

19. $3\frac{2}{5} + 5\frac{1}{5} =$

20. $\frac{11}{16} - \frac{9}{16} =$

21. $2\frac{4}{7} + 1\frac{5}{7} =$

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Use the percent Formula $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$ to solve the following. Round money answers to the nearest cent (hundredth), all others to the nearest tenth. (2 points each)

1. 27 out of 36 is what _____%? 2. 24% of 700 is _____ 3. 91 is 65% of _____

Solve the following equations. Fraction answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (3 points each)

4. $6x - 16 = 8x$

5. $4x - 6 = -x + 36$

6. $-3(5x + 4) + 2x = 8 - (2x - 7) + 6$

7. $\frac{3x-7}{4} = \frac{-4x-3}{5}$

Find the percent of increase or decrease. Round % to the nearest tenth if necessary. (4 points)

8. PetSmart is offering a sale on doggy beds. They originally sold for \$37.99, but the sale price is \$31.99. What was the percent of the increase or decrease?

Increase of Decrease? _____ How Much ? _____

What is the % of increase of decrease? _____

Change the following improper fractions to mixed numbers. (2 points each)

9. $\frac{18}{4} =$

10. $\frac{79}{9} =$

Change the following mixed numbers to improper fractions. (2 points each)

11. $4\frac{7}{9} =$

12. $6\frac{5}{8} =$

Multiply or divide the following fractions. Answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (2 points each)

13. $\frac{4}{15} \cdot \frac{3}{14} =$

14. $5\frac{7}{12} \cdot \frac{4}{9} =$

15. $7 \cdot \frac{2}{35} =$

16. $\frac{4}{5} \div \frac{18}{30} =$

17. $\frac{7}{8} \div 21 =$

18. $2\frac{5}{7} \div 8\frac{4}{9} =$

Add or subtract the following fractions. Answers must be reduced to lowest terms and written as mixed numbers where necessary. (2 points each)

19. $\frac{3}{10} + \frac{1}{10} =$

20. $6\frac{3}{4} + 2\frac{1}{4} =$

21. $\frac{9}{12} - \frac{5}{12} =$

22. $3\frac{5}{6} - 1\frac{1}{6} =$

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Use the percent Formula $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$ to solve the following. Round money answers to the nearest cent (hundredth), all others to the nearest tenth. (2 points each)

1. 36 out of 45 is what _____% 2. 56% of 600 is _____ 3. 72 is 72% of _____

Solve the following equations. Fraction answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (3 points each)

4. $4x - 25 = 12$

5. $2(7x - 2) = -x - 9$

6. $2(5k + 9) + 16 = 6(k + 9) + 2k$

7. $\frac{14}{x+15} = \frac{8}{x+5}$

Find the percent of increase or decrease. Round % to the nearest tenth if necessary. (4 points)

8. Verizon is offering a sale on “droid” phones. They originally sold for \$199.99, but the sale price is \$99.99. What was the percent of the increase or decrease?

Increase of Decrease? _____ How Much ? _____

What is the % of increase of decrease? _____

Change the following improper fractions to mixed numbers. (2 points each)

9. $\frac{37}{9} =$

10. $\frac{27}{5} =$

Change the following mixed numbers to improper fractions. (2 points each)

11. $3\frac{1}{8} =$

12. $9\frac{1}{4} =$

Multiply or divide the following fractions. Answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (2 points each)

13. $\frac{5}{13} \cdot \frac{2}{10} =$

14. $3\frac{5}{6} \cdot \frac{2}{3} =$

15. $4 \cdot \frac{5}{24} =$

16. $\frac{3}{5} \div \frac{15}{25} =$

17. $\frac{6}{7} \div 18 =$

18. $5\frac{3}{7} \div 1\frac{2}{3} =$

Add or subtract the following fractions. Answers must be reduced to lowest terms and written as mixed numbers where necessary. (2 points each)

19. $\frac{2}{12} + \frac{1}{12} =$

20. $9\frac{2}{5} + 2\frac{3}{5} =$

21. $\frac{7}{10} - \frac{3}{10} =$

22. $9\frac{1}{4} - 1\frac{3}{4} =$