

SHOW ALL WORK to receive full credit.

Evaluate the following exponents. (1 point each)

1. $4^3 =$

2. $(-3)^2 =$

3. $2^4 =$

4. $9^2 - 4^3 =$

5. $8^0 =$

6. $(-2)^3 + 6^2 =$

Use the exponent laws to answer each problem. (2 points each)

7. $x^4 \cdot x^6 =$

8. $\frac{x^8}{x^2} =$

9. $x^{-4} \cdot x^{-5} =$

10. $x^{-3} \cdot x^2 =$

11. $\frac{x^{-4}}{x^9} =$

12. $\frac{x^5}{x^{-7}} =$

Simplify the following expressions using positive and negative integers. (1 point each)

13. $5 - (-8) =$

14. $-4 - (-2) =$

15. $-6 + 16 =$

16. $6x + 7 - 2x - (-5) =$

17. $8 + 3 - (-2) =$

Answer each of the following applications to Mental Percents questions. Answers must be rounded to the nearest cent (hundredths). (3 points)

18. Sierra was offering 15% off season passes until January 31st. If a season pass cost \$379 regularly, how much would it cost for 2 people at the discounted rate?

Total original cost for both passes: _____

Discount for both passes: _____

Total amount for both passes with discount: _____

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)

19. $8(3x - 2) = 7x - 1$

20. $6 - 3x - (-1) = 10$

Multiply or divide the following fractions. Answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (1 point each)

21. $6\frac{3}{5} \cdot \frac{15}{22} =$

22. $\frac{3}{14} \div \frac{9}{35} =$

Add or subtract the following fractions. Answers must be reduced to lowest terms. Change improper fractions to mixed numbers. (1 point each)

23. $\frac{3}{4} + \frac{7}{4} =$

24. $6\frac{1}{8} - 3\frac{3}{4} =$

Change from scientific notation to standard notation. (3 points each)

25. $4 \times 10^{-5} =$ _____

26. $2 \times 10^8 =$ _____

Change from standard notation to scientific notation. (3 points each)

27. $0.0007703 =$ _____

28. $5,340,000,000 =$ _____

SHOW ALL WORK to receive full credit.**Evaluate. (2 points each)**

1. $6^3 =$

2. $-5^2 =$

3. $(-6)^3 =$

4. $528^0 =$

5. $2^4 - 3^2 =$

6. $7^2 + 3^3 =$

Use the exponent laws to answer each problem. (2 points each)

7. $x^5 \cdot x^{-3} =$

8. $\frac{x^9}{x^2} =$

9. $(x^4)^4 =$

Simplify the following expressions using positive and negative integers. (2 points each)

10. $7 - (-10) =$

11. $-(-3) - 8 =$

12. $12 - 7 - (-2) =$

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

13. Tammy went to KMart to buy a sewing machine. If the price went from \$299.99 to \$119.99, what was the percent increase or decrease?

Increase of Decrease? _____ How Much ? _____

What is the % of increase of decrease? _____

Solve the following equations. Fraction answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (2 points)

14. $7(3x - 2) - (16x - 5) = 52$

15. $7(3x - (-2)) - (16x - (-5)) = 84$

Multiply or divide the following fractions. Answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (1 point each)

16. $\frac{15}{13} \cdot \frac{26}{10} =$

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

Add or subtract the following fractions. Answers must be reduced to lowest terms. Change improper fractions to mixed numbers. (1 point each)

18. $8\frac{1}{4} + 5\frac{5}{4} =$

19. $3\frac{7}{9} - \frac{2}{9} =$

20. $\frac{1}{25} + \frac{2}{5} =$

21. $6\frac{1}{4} + 4\frac{2}{3} =$

Change from scientific notation to standard notation. (3 points each)

22. $7.92 \times 10^6 =$ _____

23. $1 \times 10^{-4} =$ _____

Change from standard notation to scientific notation. (3 points each)

24. $0.003316 =$ _____

25. $4,510,000,000 =$ _____

SHOW ALL WORK to receive full credit.**Evaluate. (1 point each)**

1. $4^5 =$

2. $-2^3 =$

3. $(-3)^4 =$

4. $5^2 - 2^4 =$

5. $128^0 =$

Use the exponent laws to answer each problem. (1 point each)

6. $\frac{x^{-8}}{x^{-5}} =$

7. $(x^4)^4 =$

8. $x^5 \cdot x^{-3} =$

9. $\frac{x^9}{x^2} =$

Simplify the following expressions using positive and negative integers. (1 point each)

10. $3 - (-15) =$

11. $-6 - 12 =$

12. $10 - 15 - (-6) =$

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)

13. $12 - (3x - 17) = 4x - 5$

14. $\frac{5x-4}{2x+3} = \frac{-2}{3}$

Fractions: Perform the indicated operation. Answers must be left as proper fractions or mixed numbers. Answers must be reduced to lowest terms. (1 point each)

15. $\frac{11}{20} \cdot \frac{25}{22} =$

16. $5\frac{1}{4} \div 2\frac{5}{8} =$

17. $5\frac{3}{8} - 2\frac{7}{8} =$

18. $\frac{4}{15} + \frac{4}{5} =$

Change from scientific notation to standard notation. (3 points each)

19. $1.863 \times 10^2 =$ _____

20. $6.866 \times 10^{-6} =$ _____

Change from standard notation to scientific notation. (3 points each)

21. $5,559,000 =$ _____

22. $0.0000000562 =$ _____

Give the ordered pairs of each point. (2 points each)

23. A _____ 24. B _____

25. C _____ 26. D _____

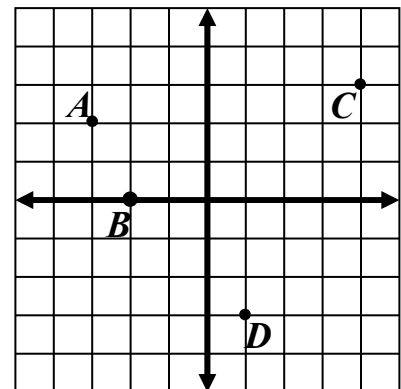
Graph and label each of the following ordered pairs on the grid to the right. (2 points each)

27. $E(4, -2)$

28. $F(-1, -3)$

29. $G(2,0)$

30. $H(0, -5)$



Use for problems
23 – 30