

Name: _____ Date: _____ Per: _____

Midterm Review 1

Read each problem carefully. Show all of your work, circle your answers! Good luck!

Evaluate the expression. (1.1-1.2)

1. $2^3 - 3 \cdot 5^2$

2. $7[(9 + 6) \div 3]$

3. $21 - |n|$ when $n = -13$

4. $-q + |2q|$ when $q = -3$

5. $-3z - 2$ when $z = -6$

Translate the verbal phrase into an algebraic expression, equation, or inequality. (1.3-1.4)

6. The quotient of a number y squared and 6 is greater than or equal to 20.

7. A newsstand buys newspapers for \$.75 each and magazines for \$2.99 each.

a) Write an algebraic expression for the total cost of the newsstand's stock.

b) Find the total cost of 30 newspapers and 20 magazines.

8. Write a rule for the given function. (1.6)

Input, x	1	2	3	4
Output, y	-3	-6	-9	-12

Classify the given number using all names that apply. (2.1)

9. $-\frac{2}{5}$

10. 1.2

Add, subtract, multiply or divide. (2.2-2.6)

11. $2.8 + (-5.3)$

12. $-\frac{3}{10} + \frac{2}{5}$

13. $-0.5(-18)$

14. $24 \div (-8)$

Simplify the expression. (2.5)

15. $-8(m + 2)$

16. $\frac{15x - 40}{-5}$

Solve each equation. (3.1-3.4)

17. $\frac{x}{7} = -9$

18. $47 = -4z - 2z - 7$

19. $\frac{7}{8}(a - 8) = 14$

Solve the given proportion or percent problem. (3.5-3.7)

20. $\frac{7}{8} = \frac{21}{-2p}$

21. $\frac{4}{7} = \frac{-3w+2}{-2w}$

22. What percent of 65 is 13?

23. What number is 12% of 140?

24. In a school cell phone survey of 375 students, 210 of the students surveyed said they own a cell phone. What percent of the students surveyed own a cell phone?

25. Write the equation in function form: **(3.8)**

$$6x + 2y = 24$$