NAME _____ DATE _____

Alg I
7-9 Periods
Day 3

Cumulative Review (Chapters 1-10)

1. Write the expression $3 \cdot 3 \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y$ using exponents.

2. Simplify $7ax^2 + 5a + 2ax^2$.

3. Find $-\frac{3}{8} + \frac{5}{16}$.

4. Solve $-38 = 7 - p$.

5. Simplify $\frac{2}{3}(6a - 9b) - \frac{1}{2}(2a - 12b)$.

6. Solve $\frac{3y - 2}{5} = \frac{1}{10}y$.

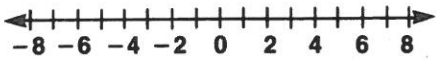
7. Find two consecutive even integers whose sum is 74.

Solve each inequality.

8. $q - 3.6 \geq -14.1$

9. $7m - 11 < 38$

10. Solve the open sentence $|3 - y| \leq 3$. Then graph its solution set. Use the number line provided.



11. Simplify $(-7x^5y^3)^3$.

12. Simplify $\frac{-56mn^3p^2}{42mn^4p^6}$.

13. Carlos paid \$37.98 for new record albums. This included $5\frac{1}{2}\%$ sales tax. What did the albums cost without the tax?

Find each product.

14. $2x(x^2 + xy - 5y)$

15. $(x^2 - 3x)(3x^2 + 2x)$

16. The length of a rectangular lot is 10 feet less than 3 times its width. The perimeter of the lot is 620 feet. Find the dimensions of the lot.

17. Find the GCF of $10a^3$, $20ab^2$, and $25a^2b$.

Factor, if possible.

18. $y^2 - \frac{2}{3}y + \frac{1}{9}$

19. $7a^2b + 7a^2 + 5b^2 + 5b$

20. $y^4 - 1$

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NAME _____ DATE _____

Cumulative Review (Chapters 1–10)

Solve each equation.

21. $x(x + 5)(2x - 3) = 0$

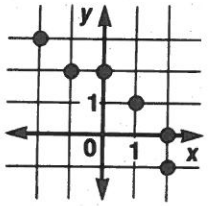
22. $2t^2 - 4t = 0$

23. Find two integers whose difference is 26 and whose product is -168.

24. Simplify $\dfrac{6q^2 - 15q}{6q^3 + 6q^2r + 12q^2}$

25. State the quadrant in which the point with coordinates $(-1, 5)$ is located.

26. Write the relation at the right as a set of ordered pairs. Then state the domain and range.



27. State whether the relation in Exercise 26 is a function.

28. Write an equation for the relationship between the variables in the chart at the right.

x	1	2	3	4
y	8	10	12	14

29. Determine the slope of the line passing through $(2, 7)$ and $(-5, 2)$.

30. Write an equation in standard form for the line passing through $(2, 6)$ and having a slope of -3.

31. Write an equation in slope-intercept form for the line in Exercise 30.

32. Write an equation for the line that is parallel to the graph of $5x - 3y = 1$ and passes through $(0, -4)$.

33. Graph $y = 2x - 3$. Use the coordinate plane at the right.

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