NAME _____ DATE _____ PERIOD _____

10

Chapter 10 Cumulative Review

(Chapters 1–10)

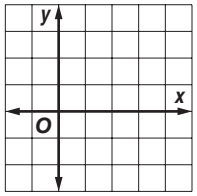
1. Solve the proportion $\frac{n}{500} = \frac{2}{40}$. (Lesson 3-6) **1.** _____

2. Determine the x-intercept and y-intercept of $4x - 2y = 10$. (Lesson 4-5) **2.** _____

3. Write a direct variation equation that relates x and y if $y = 10$ when $x = 12$. (Lesson 5-2) **3.** _____

4. Solve $4y - 3(7y - 2) \leq -14 - 13y$. (Lesson 6-3) **4.** _____

5. Solve the system of inequalities by graphing.
$x + y \leq 4$
$y \geq 2x - 4$ (Lesson 7-5) **5.**



6. Arrange the terms of the polynomial $4x - 3 + 2x^2 + 3x^3$ so that the powers of x are in descending order. (Lesson 8-4) **6.** _____

7. Simplify $(4xy + 3x^2y - 5y^2) - (3y^2 - 5xy + 7x^2y)$. (Lesson 8-5) **7.** _____

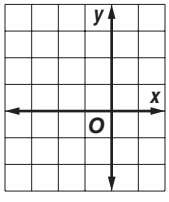
8. Find $(3a^2 + 2)(3a^2 - 2)$. (Lesson 8-8) **8.** _____

9. Factor $x^2 + 12x + 35$. (Lesson 9-3) **9.** _____

10. Factor $2m^2 + 11m + 15$. (Lesson 9-4) **10.** _____

11. Solve $36 - \frac{1}{4}y^2 = 0$ by factoring. (Lesson 9-5) **11.** _____

12. Use a table of values to graph $y = x^2 - 2x + 2$. (Lesson 10-1) **12.**



13. Use the formula $h = -16t^2 + 250t$ to model the height h in feet of a model rocket t seconds after it is launched. Determine when the rocket will reach a height of 900 feet. (Lesson 10-4) **13.** _____

14. The population of North Carolina has been increasing at an annual rate of 1.7%. If the population of North Carolina was 7,650,789 in the year 1999, predict its population in 2010. (Lesson 10-6) **14.** _____