

Algebra (Prentice Hall)
Cumulative Final Semester 1

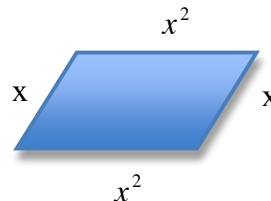
Name _____

Date _____ Period _____

1. Simplify: $-19y + 15 + 20y + 13$

2. Simplify: $-5(90t + 6s - 10)$

3. Find the perimeter of the trapezoid when $x = 30$ inches.



4. Solve: $-\frac{2}{7}x - 9 = -3$

5. Solve: $-8x + 4(3x - 6) = 10$

6. The perimeter of the trapezoid is 75 meters. Find the value of x .



7. Connie had her refrigerator fixed. The repair service charged her a flat fee of \$50 and \$15 per hour. Her total bill was \$125. How many hours was the repair man at work?

8. The length of a rectangle is ten more than its width. The perimeter of the rectangle is 140 cm. What is the **length** of the rectangle?

9. How many solutions does the equation $3(x - 2) = 3x - 6$ have?

10. Solve for w : $P = 2l + 2w$

11. It takes Bill 5 hours to paint 425 square feet. How long will it take Bill to paint 300 square feet?

12. Solve: $\frac{2x + 6}{3} = -\frac{4}{3}$

13. Solve: $-6x + 2 \geq 10$

14. Solve: $3x + 10x - 17 \leq 22$

15. Graph the solutions to $5x - 10 > 5x + 15$?

16. Write an inequality for which -5 is a solution.

17. Write the compound inequality that represents the statement.
 “Track practice will be at least 30 minutes but no more than 90 minutes.”
18. Amy sold four boxes of Girl Scout cookies for \$14.00. Write a linear equation and solve to find the cost per box.
19. You have \$60 saved to buy your Ipad. You earn \$5 an hour babysitting. How many more hours do you have to babysit to buy the \$500 Ipad?
20. Solve: $-10 < x + 8 < 9$
21. Find a number that is not a solution for $-3 < x < -1$.
22. Solve: $|4d - 7| = 5$
23. Draw a graph that represents a function.
24. Make a table for a function.

x	y

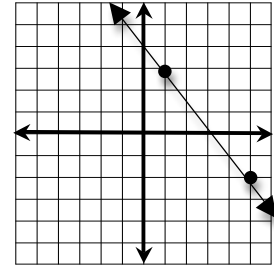
 Remember “No repeating domain!”
25. Make a list of terms for x and y.
26. You have 30 pages written in your story and are writing 3 more pages each night. Write a linear function for the total amount of pages written.
27. Write the function rule from the table.

x	y
1	20
2	30
3	40
28. Find the slope of the line passing through the points (-8,1) and (-6,5).

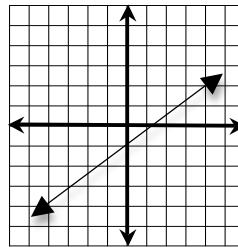
29. What is the slope of a horizontal line? Vertical line?

30. In 1990, a can of pop cost \$.50. In 2000, a can of pop cost \$.85. Find the average rate of change for the price of a can of pop in **dollars per year**.

31. What is the slope intercept equation for the line shown?



32. What is the x-intercept of the line?



33. Mark shoots 2-point baskets and 3-point baskets. Write the correct equation in standard form modeling the number of two point baskets and three point baskets that Mark could shoot and total 22 points.

34. Write the equation for #31 in point slope form.

35. Find the x-intercept of the equation $5x + 6y = 50$.

36. Write the equation of the line in point slope form that passes through the points $(-3, 8)$ and $(-6, 17)$?

37. Assuming that you are using a 10-sided die, what is the probability that you roll a number less than or equal to 8?

38. Assume you have a bag of tiles: 6 yellow tiles, 3 red tiles, and 1 white tile. What is the probability that you pick a red tile, **do not replace it**, then pick a white tile?

39. If you have 9 shirts, 5 pair of pants, and 3 pair of shoes, how many outfits can you make (assuming that an outfit consists of one shirt, one pair of pants, and one pair of shoes)?