

Blizzard Bag #2

Algebra I

Name _____

CHAPTER
6**Cumulative Review**

For use after Chapter 6

Find the slope of the line that passes through the points. (Lesson 4.4)

35. (4, 8) and (5, 13)

36. (-3, 6) and (2, 7)

37. (-8, -2) and (-5, -2)

Graph the equation. (Lessons 4.2, 4.3, 4.5)

38. $y - 2x = -3$

39. $x = -4$

40. $y = \frac{3}{5}x + 3$

Evaluate the function for the given value. (Lesson 4.6)

41. $f(x) = -\frac{1}{2}x + 3$ when $x = -2$

42. $g(x) = 8x - 7$ when $x = 0.5$

43. **Spillways** The amount of water w (in thousands of gallons) flowing over a dam's spillway varies directly with time t (in hours). In 4 hours, 6 thousand gallons of water flow over the spillway. Write a direct variation equation that relates w and t . How many thousands of gallons of water spill out of the dam in 12 hours?

Write an equation in slope-intercept form of the line that passes through the given point and has the given slope m . (Lessons 5.1, 5.2)

44. (-1, 3), $m = 2$

45. (4, -3), $m = \frac{3}{4}$

46. (2, -7), $m = -5$

47. Write an equation in standard form of the line that has a slope of -7 and passes through the point (3, -7). (Lesson 5.4)

48. Make a scatter plot of the data. Describe the correlation of the data. (Lesson 5.6)

x	0	2	4	6	8
y	7	16	25	38	50

Solve the inequality, if possible. Graph your solution. (Lessons 6.1–6.5)

49. $x - 13 < -8$

50. $5x + 6 \geq 16$

51. $7x - 3 > 2(6x - 4)$

52. $-5 < 7 - 2x < 5$

53. $4x + 1 \leq 9$ or $2x - 5 \geq 9$

54. $|2x - 5| + 2 < 8$

55. Graph the inequality $y \leq 3x - 4$. (Lesson 6.7)

56. **Summer Work** You work two part-time jobs during the summer. You earn \$5 per hour washing cars, and \$8 per hour as a swimming instructor. You want to earn at least \$300 over the summer. Write an inequality that describes your goal in terms of hours spent washing cars and hours spent as a swim instructor. Graph the inequality. (Lesson 6.7)



