

Name _____

Algebra II
1st Grading Period Exam Review Packet

For problems 1-7 Simplify

1. $(-6 - 4)(-6 + 5)$

2. $5(x - y) - 3(x - y)$

3. $64 \div [(-4) \div (-2)]$

4. $\frac{24 - 6t^2}{2}$

5. $(-12)\left(-\frac{3}{4} - \frac{1}{2}\right)$
 $\frac{5}{9} \div (-10)$

6. $(1 - 12 - -3) - |-15 - 18$

7. $3(x - 2) + 2(1 - x)$

8. Label the following statements as true or false

a) $0 < -2$

b) $|-2| < |2|$

c) $\frac{3}{2} < -4$

d) $6 > -2$

9. If $x = -2$, Evaluate

$$6x^3 - 5x^2 - 2x + 7$$

10. If $x = 2$ and $y = 3$ Evaluate

$$\frac{x^3 - 2(x + y)}{2(x - y)^2}$$

11. Simplify

$$-(-1)^2(-2)^3$$

12. Simplify

$$2[4(5 - 3) - 2^2]$$

13. Simplify

$$\frac{18}{3} + 3 \cdot 4 - 3$$

14. Simplify: $\frac{9x - 12}{3}$

15. Solve the Equation: $2(x - 1) = 4x + 7$

16. Solve the Equation: $4(n + 5) = 5n - 3$

17. Solve the Equation: $5d + 1 = 4d - (1 - d)$

18. Solve the Equation: $3y - 2 = 2(y + 1) - (4 - y)$

19. Solve the Equation: $5(x - 2) - 3(2x - 1) = 4(1 + x)$

20. Solve the Equation: $3(x - 2) = 5x + 4$

21. Solve: $3(4z - 1) > 2(6z - 5)$

22. Solve: $5(3r - 1) - 2(r - 6) \geq 46$

23. Solve: $-(8 + m) < 8 - m$

24. Solve: $x + 11 < -1$ or $-\frac{1}{2}x \leq -4$

25. Solve: $-3 - \frac{1}{2}t > 3$ or $7.5(1 - 8t) \geq -63t$

26. Solve $-(10 - r) < r - 15$

27. Solve: $5 - a < 3 - 2a$ and $2 - 3(a - 1) < 2 - (a - 3)$

28. Solve: $-9 < w - 2 < -5$

29. Solve: $|2x - 6| \geq 8$

30. Solve: $6 - |4 + y| \leq 5$

31. Solve: $\left|2k - \frac{5}{2}\right| \geq \frac{7}{2}$

32. Solve : $|2x - 1| + 3 \leq 6$

33. Graph the equation $x + 2y = 4$

34. Find the x and y intercepts of the line: $3x + 4y = 12$

35. Find the x and y intercepts of the line: $6x + 3y = -5$

36. Find the x and y intercepts of the line: $-2x + y = 3$

37. Find the slope of the line containing the points $\left(\frac{1}{2}, -2\right)$ and $(0, -4)$

38. Find the slope of the line containing the points $(7, 2); (-4, 2)$

39. Find the slope of the line containing the points $(6, -7), (-4, -2)$

40. Find the slope of the line containing the points $(0,0), (5, -5)$

41. Find the slope of the line containing the points $(-1, -4), (-1, 6)$

42. Find the slope of the line $y = -\frac{5}{3}x - 12$

43. Find the slope of the line $10x = 8y - 7$

44. Find the slope of the line $2(1 - y) = x$
45. Name the quadrant(s) where both coordinates of a point are negative
46. Name the quadrant(s) where the coordinates of a point are the same
47. Name the quadrant(s) where at least one coordinate of a point is negative
48. Name the quadrant(s) where the x coordinate of a point is positive
49. Find the equation of the line with a slope of 4 and a y-intercept of -3
50. Find the equation of the line with a slope of $-\frac{3}{5}$ and a y-intercept of $\frac{2}{5}$
51. Find the equation of the line with a slope of $-\frac{2}{3}$ that goes through the point $(-2, 6)$
52. Find the equation of the line with a slope of 5 that goes through the point $(-1, 0)$

53. Find the equation of the line with a slope of $\frac{1}{2}$ that goes through the point $(-7,-5)$

54. Find the equation of the line that goes through the points $(7,2)$ $(-1,-2)$

55. Find the equation of the line that goes through the points $(4,2)$ $(4,-5)$

56. Find the equation of the line that goes through the points $(\frac{1}{4},\frac{3}{2})$ $(\frac{3}{4}, 1)$

57. Find the equation of the line that goes through the points $(-3,1)$ $(-4,1)$