

Name: _____

Period: _____

Score: _____ / _____ = _____ %

Sec 1 H**Review Sheet****Unit 1****Simplify.**

1. $8 - 2 \cdot 5 - 3 + 5 \cdot 4$

5. $5^3 - (-8) - 12(-2)$

2. $2 - 3 \cdot 6$

6. $15 - 6 \div 2$

3. $44 \div 11 + 5 \cdot 7 - 5^2$

7.
$$\frac{-23 - (-15)}{(-18 + 7) - (-5)}$$

4. $4 \cdot 9 - 8 + 3$

8.
$$\frac{(-2)^2 - 3^2}{8 - 3(2)}$$

Simplify.

9. $(4x^3 - 5x^2 + 7x) + (2x^2 - x + 3)$

13. $(x - 7)(x + 3)$

10. $(-5y^2 + 4y^7) + (9y^7 - 4y^2)$

14. $(2x + 5) - (3x^2 - 4x + 2)$

11. $\frac{1}{4}(8x^2 + 24) - (5x + 6)$

15. $(2x + 9)(4x - 3)$

12. $(x + 5)(x + 2)$

16. $(6x - 1)(5x + 8)$

Simplify.

17. $-9(x-7)$

19. $(4x^3y^2)^3$

18. $8y^2(-6y^2+5y+1)$

20. $(6x^5y^2)(3xy^3)$

Solve for y . Then write your answer in slope-intercept form. ($y = mx + b$)

21. $2x + 3y = 9$

25. $2y - 3x = y + 7$

22. $4x - 8y = 12$

26. $3x - \frac{y}{5} = -8$

23. $x - y = 5$

27. $7y - 4 = -2y + x$

24. $4x - y = 3$

28. $\frac{2x}{4} - 5y = -2$

Solve using inverse operations. Be sure to JUSTIFY your steps using Properties of Equality.

29. $-5h = 35$ | Justification

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30. $-18 = x - 5$ | Justification

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31. $26 - m = 11$ | Justification

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32. $15d - 6 = 18 + 7d$ | Justification

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Solve using inverse operations. Be sure to JUSTIFY your steps using Properties of Inequality.

33. $4(5x - 6) > -24$ | Justification

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34. $\frac{k}{5} \leq 11$ | Justification

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Solve using inverse operations.

35. $-3(2x - 9) = 2 - 5(3x + 7)$

36. $12x - 16x = 27$

Solve using inverse operations.

37. $2(15x - 10) - 4(16x + 10) = 8$

40. $4(z - 3) + 3(2z + 5) < -7$

38. $5(2x + 3) + 6x = -17$

41. $-9t + 4(t - 2) \leq t - (6 + 5t) + 9$

39. $20 - 5x \geq 17 - 2x$

42. $\frac{3}{5}m + 2 > \frac{1}{3}m$

43. Jan noticed at the store that a sweater costs \$3.95 more than a shirt. She bought 3 shirts and 2 sweaters and the total cost (before tax) was \$71.65. What is the price of a sweater? What is the price of a shirt?
44. Luigi purchased three pairs of shoes and two pairs of boots for \$130. If a pair of boots is five dollars less than the price of shoes, determine the price of a pair of boots.
45. Your mom spent \$48.75 (before tax) buying school supplies for the family: 5 rulers, 6 scissors, and 4 packs of colored pencils. Scissors cost twice as much as a ruler and colored pencils cost \$3 more than a ruler. How much does a ruler cost? How much does a pair of scissors cost? How much does a pack of pencils cost?

Solve for c .

46. $cx + by = d$

47. $\frac{1}{3}ct = p$

Solve for m .

48. $hm + y = w$

49. $u(m + e) = v$

Solve for x .

50. $3axb = 24$

51. $\frac{3}{5}(x + y) = 15$