

Algebra 0507
1st Semester Final
Review

Name _____

1. Simplify: $16 - (-27)$	2. Evaluate: $- \left -2 \cdot \frac{1}{2} \right $
3. Simplify: $2 + 4[6(8 - 3) \div 10]$	4. Write as a fraction: a) 6.83 b) $-8\frac{2}{3}$
5. Write as an algebraic expression: the product of five and a number	6. Write as an algebraic expression: the quotient of a number and x
7. Write as an algebraic expression: four less than twice a number	8. Write as an algebraic expression: 3 times a number subtracted from 5
9. Evaluate: $\left(\frac{3}{4}\right)^2$	10. Evaluate: $\frac{9(-12 + 7)}{6 + 9 \div 3}$

<p>11. Evaluate: $p = 4, q = -3, r = -1$</p> $p^2 + 2qr$	<p>12. Put a box around each term:</p> $-2xy + 4y^2 - x + 8$
<p>13. Circle each numerical coefficient:</p> $-2xy + 4y^2 - x + 8$	<p>14. Combine like terms:</p> $2x^3 + 3x^2 - 4x + 5x^2 - 8x^3$
<p>15. Solve:</p> $6y - 19 = -14 + 7y$	<p>16. Solve:</p> $78 = 2y - 4(5 - 3y)$
<p>17. Solve: $\frac{1}{3}(6x - 9) = 5x - 3x - 3$</p>	<p>18. Solve:</p> $4 - 3(2x - 5) = -8x + 2x + 4$
<p>19. Solve: $\frac{4x}{3} = \frac{8}{2}$</p>	<p>20. Solve: $\frac{4}{x+2} = \frac{3}{2x-1}$</p>

21. Twice a number, decreased by 5, is the same as the number increased by 10.

22. In 6 days, Andy made sales of \$15,000. At this rate, how many days will it take him to reach sales of \$50,000?

23. What percent of 34 is 12?

24. Three times the sum of a number and 7 is greater than 13 less than 5 times the number. Find the number.

25. y varies directly as x . If $y = 6$ when $x = 8$, find y when $x = 12$

26. y varies inversely as x . If $y = 4$ when $x = 6$, find x when $y = 12$.

27. Find the slope of the line containing the given points.

$$(-2, 3)(4, -5)$$

28. Determine if the pair of lines are parallel.

$$3y + 10 = 2x$$

$$2y - 3x = 0$$

29. Write the equation in Slope-Intercept Form. Give the slope and the y-intercept.

$$3x - y = 2$$

Slope-Intercept Form _____

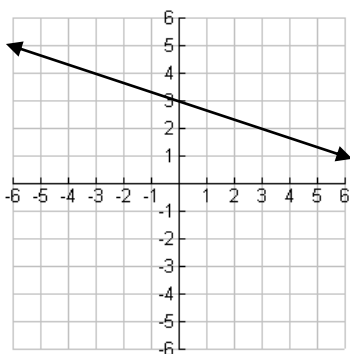
Slope _____ y-intercept _____

30. The slope and the y-intercept are given. Write the equation of the line in slope-intercept form.

$$\text{slope} = \frac{-1}{3}$$

$$y\text{-intercept} = 5$$

31.



Slope: $m =$ _____

y-intercept: $b =$ _____

Slope-Intercept Form:

32. Use the slope and the y-intercept to graph each line.

$$-3y = 6x - 9$$

