

Term 1 REVIEW for Final

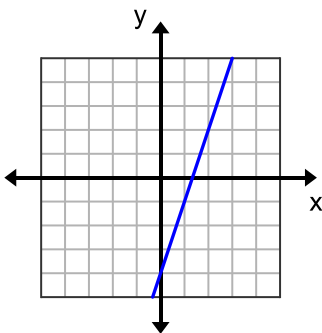
Name: _____ Period: _____

NO WORK NO CREDIT *DUE THE DAY OF THE TERM FINAL* WED., OCT 10TH / THUR., OCT 11TH

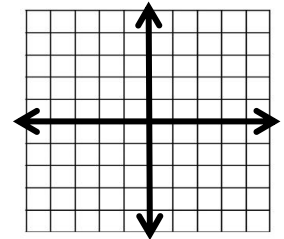
Last day to turn in homework for credit is the day of the in-class term final.

1. Find the equation of the line with slope of 5 and **x-intercept** -8 .
2. Find the equation of the line passing through $(-2, -3)$ with slope of 2.
3. Find the equation of the line passing through $(0, -3)$ with a slope of $\frac{2}{5}$.
4. Find the equation of the line passing through points $(2, -5)$ and $(-2, 3)$.

5. Write the equation of the line graphed below.



6. Graph the line of $y = -\frac{3}{4}x + 5$



7. Explain how you know when two lines are parallel if given only their equations.
8. Find an equation for the line that passes through $(-5, 3)$ and is parallel to $y = 4x - 2$.
9. If the slope of line A is $\frac{3}{8}$, what is the slope of a line that is perpendicular to line A?
10. Translate the following into an equation and solve. *Twice a number increased by 13 totals three times the number less 4.*
11. Translate the following into an equation and solve. *Three times a number then minus seven is the same as five times a number added to four*
12. You scored a 78, 92, and an 84 on the quizzes. You need to earn an 81% average with the next quiz to make the honor role. Write the equation and find the lowest score of the next quiz and still make the honor role.

13. Sadie is making bracelets to raise money for tour to California. She receives a donation for \$25 and spends \$31 on supplies. She will sell each bracelet for \$5.25.
- Define your variables.
 - Write an equation to show the amount of money Sadie can earn by selling bracelets.
 - If she sells 3-dozen bracelets, how much money will she make?

14. Solve for x: $2(x + 20) + y = 6(x + 4) - 2y$

15. Solve for h: $(2h^2 + r) = 5h + 3(b + h^2)$

16. Solve for a: $3 + ax - 5 = x$

17. Solve for x: $Ax + By = c$

18. Solve for x: $y = mx + b$

19. Solve for N: $T = 60 + \frac{N-19}{3}$

20. Solve for s and explain your steps:

$2 - s^2 = -2s^2 + 50$ _____

21. Solve for x and explain your steps:

$2x - 2y = -4(x + 2) + 9$ _____

22. Simplify the following roots. Give exact answers. No decimals. No calculators.

a. $\sqrt{52}$

b. $\sqrt{160}$

c. $\sqrt{500}$

d. $\sqrt{24}$

e. $\sqrt[3]{40}$

23. Solve the following.

a. $2\sqrt{2x - 6} = 4$

b. $\sqrt{k - 4} + 3 = 12$

c. $6 + \frac{1}{2}\sqrt{7 + 2m} = 1$

24. Solve the following absolute value equation.

a. $\frac{1}{3}|x + 3| = 5$

b. $|2h - 2| - 6 = 10$

c. $4|8 + 2m| + 3 = 7$

25. Solve for a: $8r - (5a + 4) > -31$

26. Solve: $2(2x^2 + 5) = 3(x^2 + 3) + 4$

27. Matt decides to track the depth of snow towards the end of the season. It was 33 inches deep when he first measured it. Each week the snow melts and decreased by 4.25 inches.

a. Define your variables.

b. Write an equation to show the depth of snow as it melts each week.

28. *Four times a number is fewer than twice a number and six.*

a. Write an inequality that represents this sentence.

b. Solve.

29. *The product of a six and number is greater than 18 plus two and the number.*

a. Write an inequality that represents this sentence.

b. Solve .

30. Adam starts a new job where he makes \$3,000 per month and charges an additional fee of \$200 every time he meets with a client. Find how much he can make each month.

a. Define your variables.

b. Write an inequality represents Adam's income in one year.

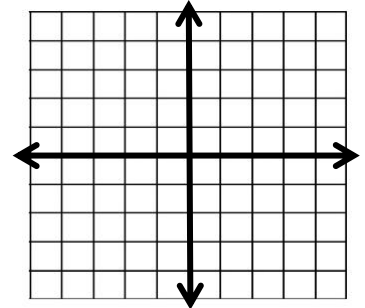
c. What would be his salary if he sold 120 items?

31. For Marina's quinceanera, her dad opens a bank account with \$220. Her mother puts in an additional \$150. She wants to put money each month to buy a car before she graduates from high school. She figures that she needs to deposit *at least* \$125 a month for the car she wants.
- Write the inequality that shows the amount of money in her savings at any time.
 - How many months will she need to save if she wants \$1000 in her account?

Solve the following linear inequalities for y . State **y-intercept** and **x-intercept**. Graph #33

32. $6(2x - y) > 3y + 12$

33. $3x + 2y < 3y - x + 3$



Inequality _____

Inequality _____

Y-intercept: _____ X-intercept: _____

Y-intercept: _____ X-intercept: _____

34. The Math club is taking a trip to Lagoon. We are going to rent buses that will hold no more than 50 people on each bus. We calculate that *at least* 629 students will attend.
- Write an inequality to represent the number of buses needed to make the trip.
 - Solve and find the number of busses we need to reserve.

35. The store at which Andy shops at is having a sale. Roast beef is \$4 each pound and shrimp is \$10 a pound.
- Define your variables.
 - Write an equation to describe difference possible combinations of roast beef and shrimp that he can buy for \$96.
 - Which is the greatest amount of shrimp he can buy?

36. The Tills family bought 4 sandwiches and 3 salads. They spent \$24.
- Define your variables.
 - Write an equation
 - If each sandwich costs \$3.75, how much did each salad cost?