

DSPM 0800 Review for Final

1. Evaluate $2x - 5y$ for $x = -2$ and $y = 7$.
2. Subtract $\frac{3}{8} - \frac{5}{12}$.
3. $|3^2 - 5 \cdot 2^3| =$
4. Use the distributive property to factor $3 - 15x + 9y$
5. True or False: $-\frac{4}{3} = \frac{-4}{3}$?
6. Solve $-\frac{3}{4}x - 1 = 11$
7. Solve $20 + 2x = -3(2x - 1)$
8. True or False: The ordered pair $(-2, 5)$ is a solution to $y = 3x + 11$.
9. Solve for A: $-4A + 2B = 8$
10. Five less than the product of 4 and some number is 15. Find the number.
11. Solve $3 - 2y \geq 11$

12. $(3x-2y)^2 =$

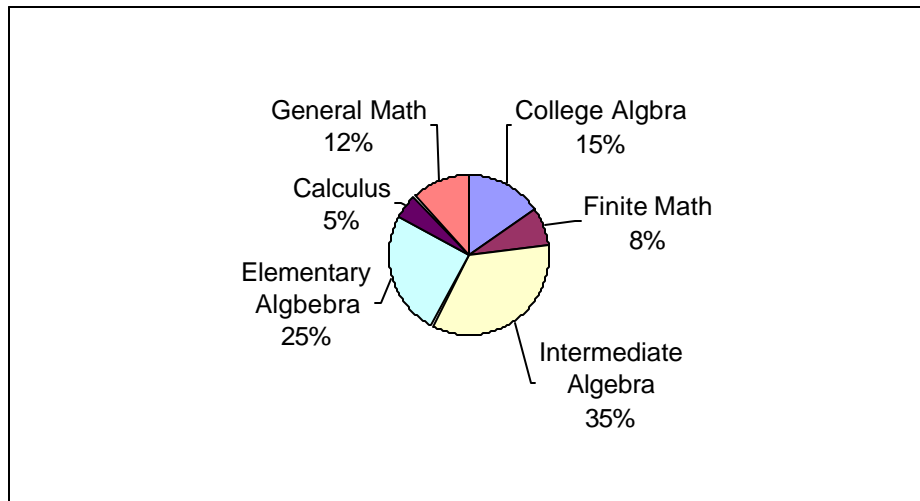
13. Find the slope-intercept equation of a line with a slope of 4 and containing the point $(-4,7)$.

14. Find $f(-3)$ for $f(x) = 5x^2 - 2x + 1$

15. Find the slope of the line containing the points $(-1,0)$ and $(4,-3)$.

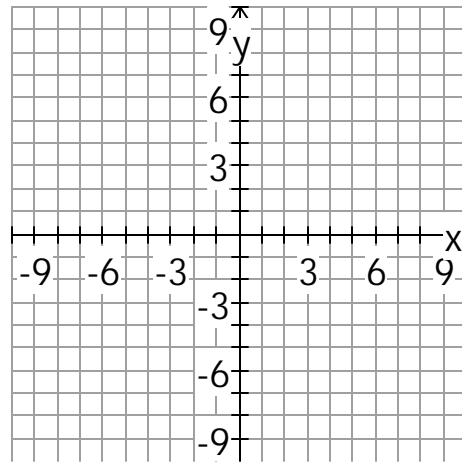
16. Find the x-intercept and y-intercept of $y = 3x - 5$

17. The following pie graph shows the percentages of students' first math class at Vandalay Community College in Fall 2001. How many students are enrolled in elementary algebra if there were a total of 5,000 students taking their first math class?



18. Determine the domain of $g(x) = \frac{5x}{x-9}$

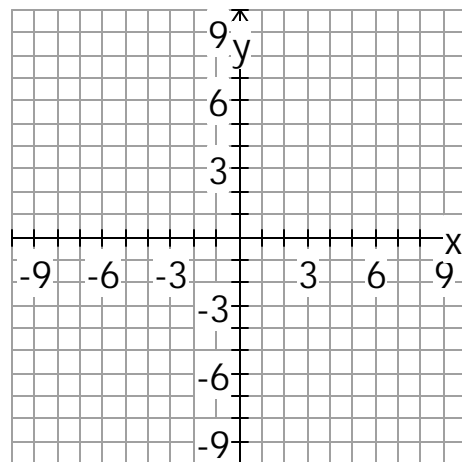
19. Graph the following $3x - 2y = 6$



20. For $x \neq 0$, $\frac{|3 - 4^2 \cdot 2|}{x^0} =$

21. $(2x^2)^3 (3x^3)^2 =$

22. Graph the system of inequalities: $\begin{cases} y \geq 2x - 3 \\ y \leq -3x + 1 \end{cases}$



23. Solve and graph the solution set of $|x - 2| < 5$

24. $(4x^2 - 3x + 2) - (5x^2 - 7x + 1) =$

25. For $x \neq 0$, $x^{-3} x^5 (x^2)^3 =$

26. Use the formula $A = \frac{1}{2}bh$ to find the area of a triangle with a height of 4in and a base of 10in.

27. $\frac{7}{8} \div \frac{3}{4} =$

28. Given the set of numbers $\left\{3, -5, 0, \sqrt{6}, p, \frac{2}{3}, 0.89\right\}$, list all of the integers.

29. Use the distributive law to factor $5a + 20b - 30c$

30. Remove the parentheses and simplify $3x - 2 - (4x - 7)$

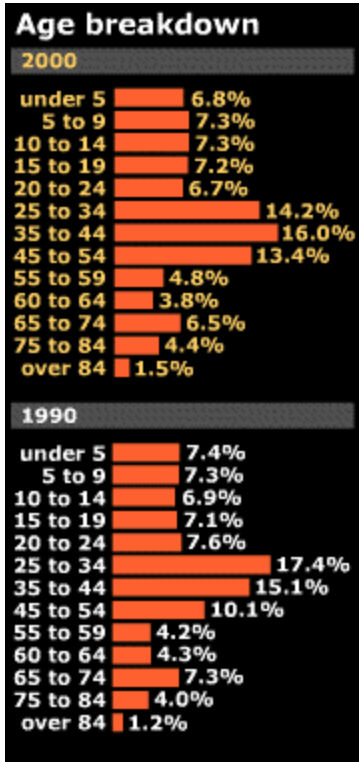
31. Solve $\frac{3}{4}b - \frac{1}{3} = \frac{4}{3}$

32. Solve for P: $\frac{2+P}{Q} = R$

33. Bob is twice as far from the finish line as he is from the start of a 100 mile bike race. How far has he ridden?

34. Solve $4(2-x) < 3(x-2)$

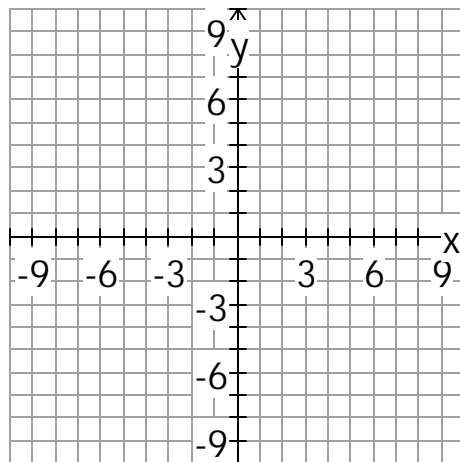
35. How many more Americans are over age 84 in 2000 compared to 1990?



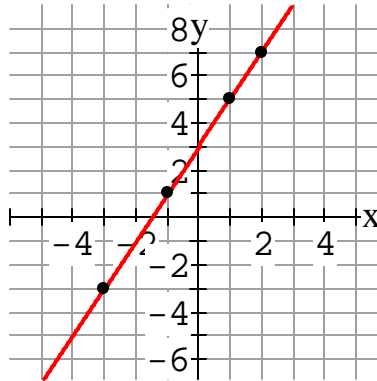
Total population

	Population	Change
2000	281,421,906	+13.2%
1990	248,709,873	

36. Graph the line $y = -\frac{2}{3}x + 1$



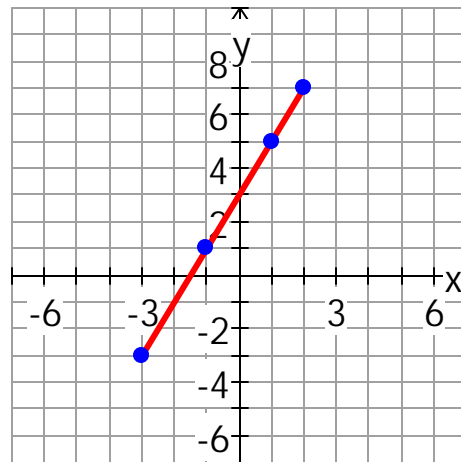
37. Find the slope of the line below



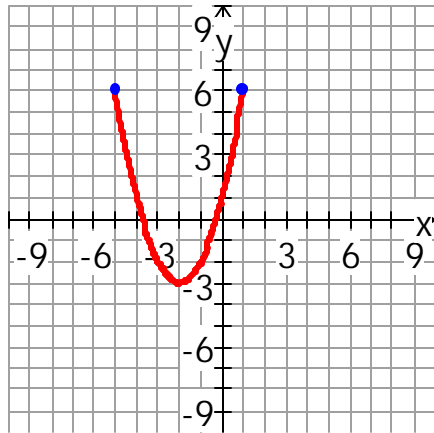
38. The profit of a bicycle manufacturer can be approximated by the function

$P(x) = 60x - 80,000$, where x is the number of bicycles produced and sold. How much profit would there be if they sold 3,000 bicycles?

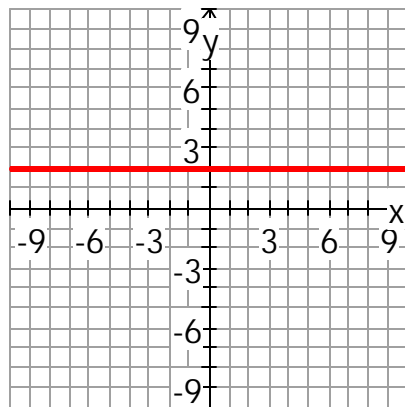
39. Given the graph below find $f(-1)$.



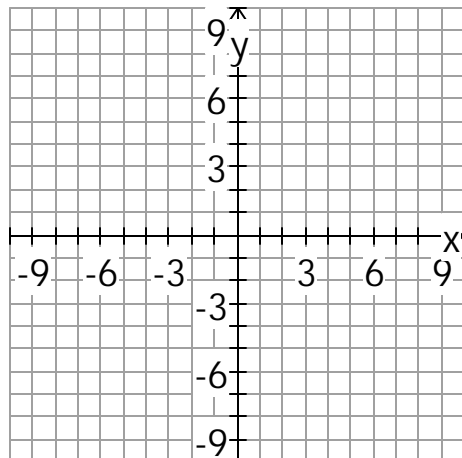
40. Given the graph below find the domain.



41. Write the equation of the line below and state its slope.



42. Graph on a plane $\begin{cases} x < 4 \\ x - 2y > 6 \end{cases}$



43. $\{6,8,10,12\} \cap \{12,14,16\} =$

44. Graph and write in interval notation: $-3 \leq 6x - 9 < 3$

45. Solve graphically: $3.156x - 8.198 = -1.462x + 3.98$

Round answer to the nearest thousandth.

46. $(-4x^2y)^3 (-3yz)^2 =$

47. Given $f(x) = -3x^3 - 2x^2 + 4$ find $f(-2)$

48. Combine like terms: $\frac{1}{3}x^2y - \frac{1}{2}xy^2 + \frac{1}{4}x^2y + xy^2$

49. $(3x^2y - 2x)(4x^2y^2 + 2xy - 1) =$

50. Convert 42,000,000,000 to scientific notation.