

Math 94 Review and Practice for the Final ANSWERS

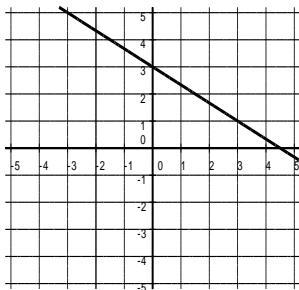
1a) 4 1b) $\frac{23}{12}$ 2a) -48 2b) 400 3a) $\frac{3}{2}$ 3b) 2

4a) -35 4b) 5 5. $x = -1$ 6. $x = \frac{9}{2}$ 7. $x = -\frac{3}{2}$ 8. 50 feet

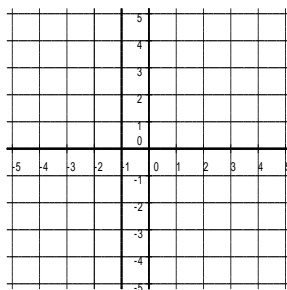
9. The Geology book costs \$110 and the Math book costs \$82.

10. The width is 12 feet, and the length is 23 feet.

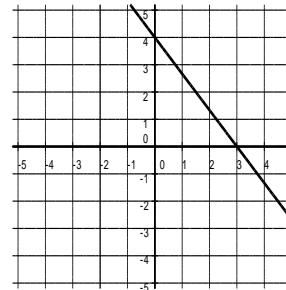
11a)



11b)



12.



13a) $y = -\frac{3}{5}x - 7$ 13b) $y = 3x - 8$ 14. $y = 3x - 6$

15. He should mix 25 gallons of 12% butterfat with 75 gallons of 8% butterfat.

16. Jerry traveled 60 mph, and Mary traveled 70 mph. 17. $y = \frac{3x+6}{8}$ or $y = \frac{3}{8}x + \frac{3}{4}$

18. $h = \frac{y}{5x^3}$ 19. $\frac{9}{16x^2}$ 20a) $\frac{1}{y^5}$ 20b) x 21a) $\frac{-3y^3}{x^4}$

21b) $\frac{2x^5}{y}$ 22a) 1.08×10^5 22b) 0.064 23a) $-2x^3 + 6x - 5$; degree 3

23b) $-y^3 + 8$; degree 3 24a) $9x^3 - 4x^2 - 5x$ 24b) $5x^2 - 13x + 4$

25. $-6x^4 + 8x^3 - 4x^2$ 26. $12x^2 - 11x - 15$ 27. $6x^2 - xy - 2y^2$ 28. $2x^2 - 4x + 5$

29a) $5x(2x^2 - 1)$ 29b) $2xy(2x^2 - 3xy - 4y^4)$ 30. $(x-3)(x-4)$ 31. $4st(2t-3s)$

32. $5(x+3)(x-3)$ 33. $(4x+9)(x-1)$ 34. $(3x-1)^2$ or $(3x-1)(3x-1)$

35. $x = 0, x = 4$ 36. $x = 5, x = -3$ 37. $x = 0, x = 1, x = 3$

38. They can manufacture 25 staplers at a cost of \$75.

39. The rug is 9 feet long by 6 feet wide.