

problem set
105

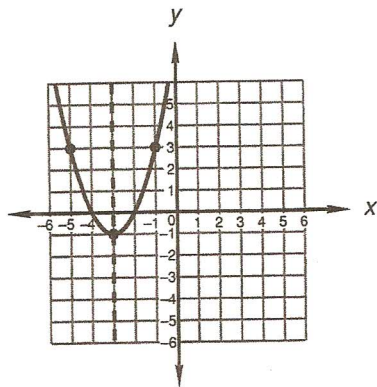
1. 1284 grams 2. $D_W = 24$ miles; $D_T = 40$ miles 3. 60 ml 4. 6000
5. 25% of selling price; 33.3% of cost 6. 2 7. $x^3 - 5x^2 + x - 5$

8. $\frac{1233}{9,990,000}$ 9. $\frac{165}{9990}$ 10. $m^2 - mp + p^2$ 11. $x^2 - xy + y^2$

12. $y = (x + 3)^2 - 1$



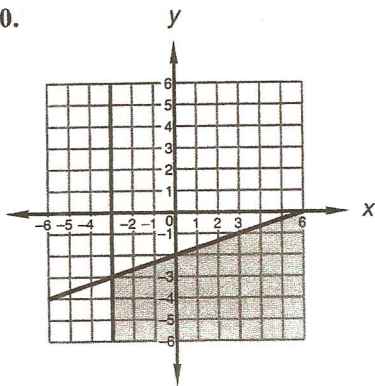
14. $\frac{18}{5}$



15. (14, 40) 16. $\left(\frac{1}{5} + \frac{\sqrt{31}}{5}, -1 + \sqrt{31}\right), \left(\frac{1}{5} - \frac{\sqrt{31}}{5}, -1 - \sqrt{31}\right)$

17. $(1 + \sqrt{3}, -1 + \sqrt{3}), (1 - \sqrt{3}, -1 - \sqrt{3})$ 18. (1, 4, -2) 19. (-2, 2)

20.



21. 0, 2, $-\frac{1}{3}$ 22. 2, $-\frac{1}{3}$ 23. $-\frac{2}{3}, -2$

24. 0, $-\frac{2}{3}, -2$ 25. $\frac{5}{2}, -1$ 26. $-\frac{1}{2}, -4$

27. $x^{11a/6+8}y^{2b/3}$ 28. $-\frac{5}{4} - \frac{1}{4}i$

29. $\frac{-25 - 11\sqrt{5}}{10}$ 30. 4π units