

Chapter 4 Review – Answers

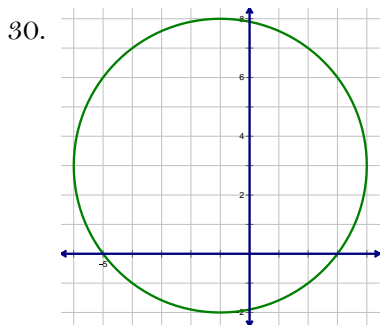
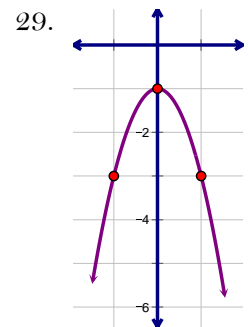
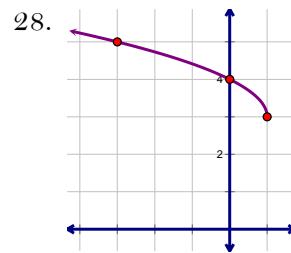
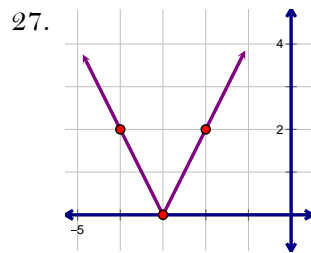
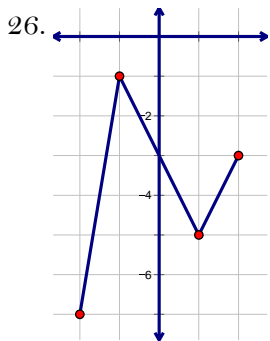
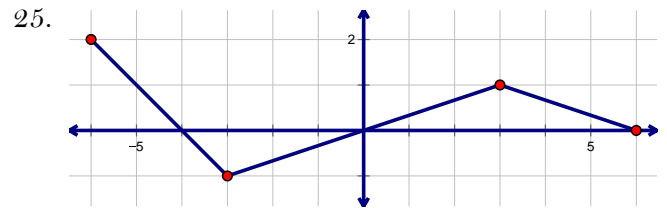
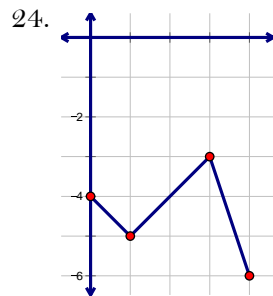
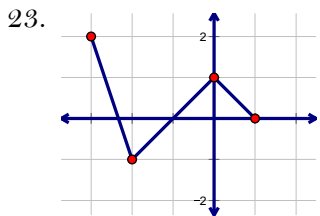
1. Yes      2. No      3. No      4. No      5. Yes      6. Yes

7. D:  $[-5, -1) \cup (-1, \infty)$     R:  $(-\infty, 4]$       8. D:  $[-2, 5)$     R:  $[0, 4)$       9. D:  $\{-2, -1, 1, 2, 3\}$     R:  $\{-1, 2, 3, 4\}$

10. D:  $(-\infty, \infty)$     R:  $[-4, 2]$       11.  $\frac{2}{3}$       12. 7      13. -2      14.  $x=3, x=-1$

15.  $x=-5, x=0$       16.  $x=-1, x=1, x=5$       17.  $2x^2 - 4$       18.  $\frac{2}{3}x$

19.  $6x+4$       20. 0      21.  $a(x) = 2\sqrt{-(x+3)} + 4$       22.  $b(x) = -\left(\frac{1}{3}(x-4)\right)^2 - 1$



31.  $(1, -8)$

32.  $(2, -4)$

33.  $(-3, 2)$

34.  $f(x) = |x|$ ; reflection over the  $x$ -axis, vertical dilation BAFO  $\frac{1}{3}$ , up 5

35.  $g(x) = \sqrt{x}$ ; reflection over the  $y$ -axis, horizontal dilation BAFO  $\frac{5}{3}$ , down 1

36.  $x^2 + y^2 = 1$ ; horizontal dilation BAFO 3, left 1, vertical dilation BAFO 4, up 3

37.  $f(x) = -2 + 3\sqrt{-(x-3)}$

38.  $g(x) = \left(\frac{1}{3}(x+2)\right)^2 - 4$

39.  $h(x) = -|x-4| + 3$

40.  $(x+3)^2 + (y-2)^2 = 25$

41.  $\left(\frac{x-4}{6}\right)^2 + \left(\frac{y+3}{2}\right)^2 = 1$