

1. a) Domain: $\{-6, -1, 4, 6\}$ Range: $\{-1, 3, 7\}$ (6, 7) (4, -1) (-6, 7) (-1, 3)
 b) Domain: $x \leq 3$ Range: $y \geq -2$.
 c) Domain: $\{-3, -2, 1, 2, 3\}$ Range: $\{-3, -2, -1, 1, 3\}$

2. a) Yes b) Yes c) No d) Yes e) No

3. $f(-3) = 23$

4. a) Range: $\{-25, -1, 27\}$ b) $w = 4$

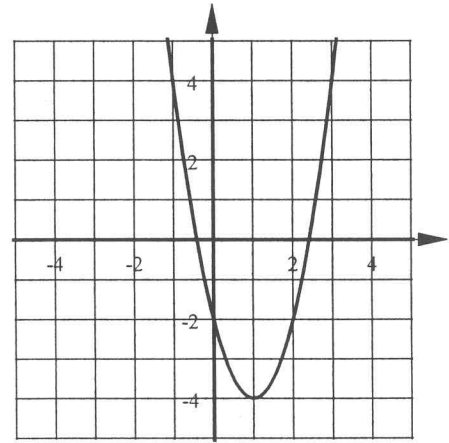
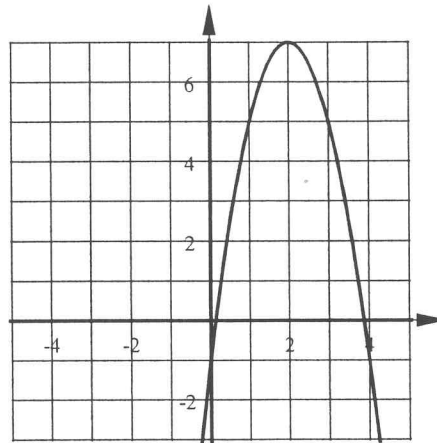
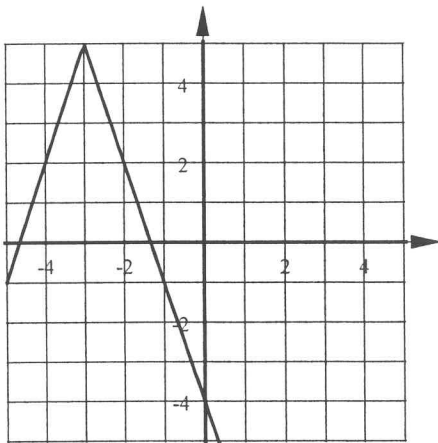
5. $2g(3) - 5m(8) = 27$

6. a) This is a parabola that opens up.
 b) This is a line that moves down and to the right
 c) this is a V-shape that opens down
 d) This is a parabola that opens down.

7. a. $y = -3|x + 3| + 5$

b. $y = -2(x - 2)^2 + 7$

c. $f(x) = 2x^2 - 4x - 2$



8. a) $G = 6m$ $G = \# \text{ gallons}$ $m = \# \text{ minutes}$

b) $B = 100 + 30h$ $B = \text{Total bill (\$)}$ $h = \# \text{ hours}$

9. a) $y = x - 4$ b) $y = 10x$ c) $y = x + 8$ d) $y = -1.5x$