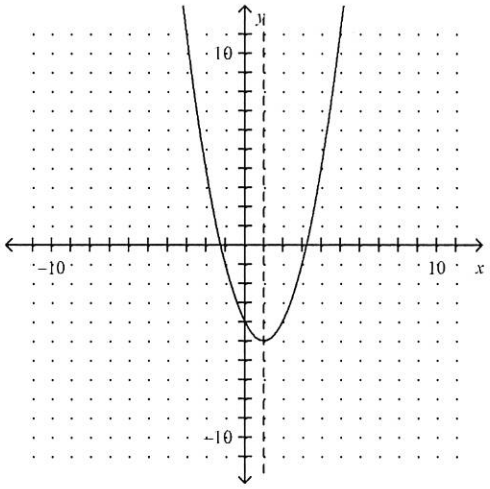
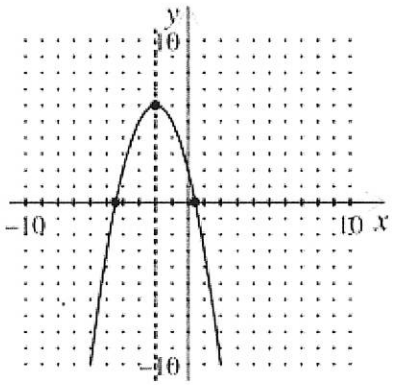
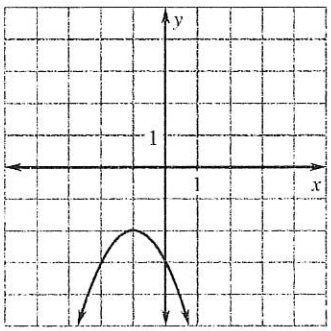
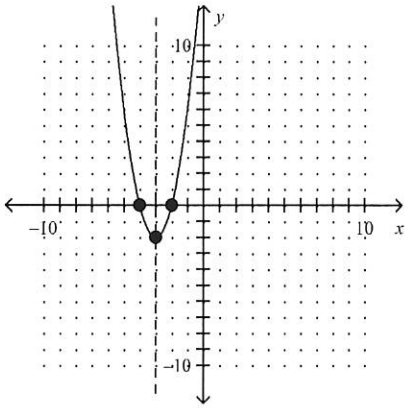
HW #54: SHOW ALL WORK on a separate piece of paper
Answer Section

1. Vertex: (2, 4); AOS: $x = 2$; max = 4
2. Vertex: (-2, 15); AOS: x = -2; max = 15
3. 

   axis of symmetry: $x = 1$
   vertex: (1, −5)
4. 

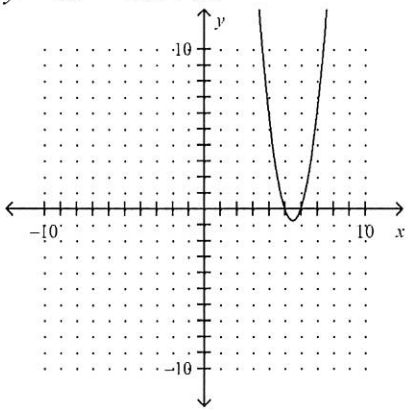
   vertex: $(-2,\ 6)$; axis of symmetry: $x = -2$; x-intercepts at $-4.4, 0.4$
5. 

6.

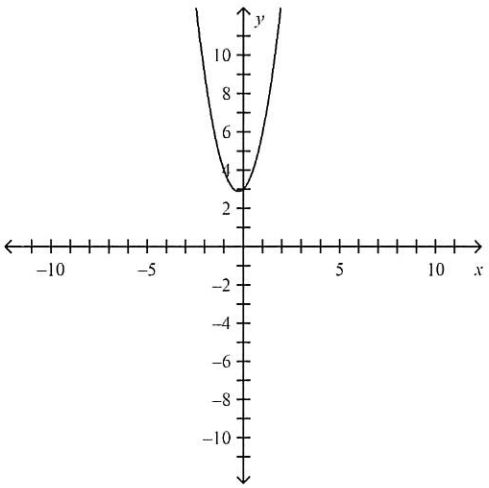


vertex: (–3, –2)
axis of symm: $x = -3$
x-intercepts: –4, –2

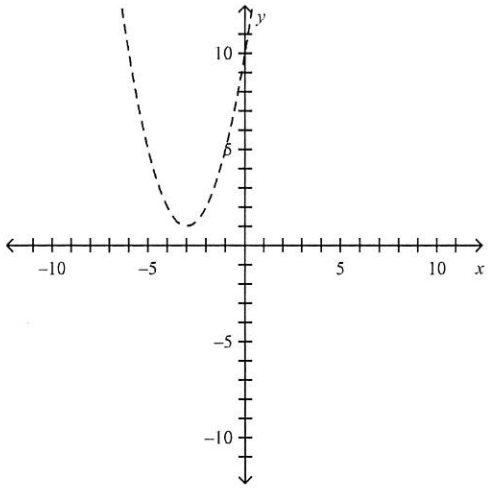
7. $y = 3x^2 - 33x + 90$



8.



9.



10. $\frac{1}{2}$ sec to reach 440 feet
    Hits the ground after 5.21 seconds
11. In the air for 1.84 seconds
    Maximum height is 20.06 feet
12. 0.59 seconds
13. Frame will be 4 inches wide
14. $y = \frac{1}{3}(x+1)^2 - 4$
15. $g(x) = \frac{1}{2}(x+6)(x-3)$
16. $f(x) = -2(x-3)^2 + 8$