1. Factor and simplify:.
2. Solve: .
3. Solve for h: .
4. Solve: .
5. Find  if .
6. Given ,,
   1. Find its vertex using two different methods (you should get the same answer both ways)
   2. Is the vertex a minimum or a maximum?
7. Find the equation that passes through (0,-1) with vertex (2,7).
8. Given  and the fact that a toy rocket is fired straight up into the air at a velocity of 80 ft/sec from ground level, how many seconds will it take to reach its maximum height and how high will it go?
9. Find the domain of .
10. Find the domain of .
11. Given  and , findand its domain.
12. Be able to interpret domain and range as well as read where a function is increasing, decreasing, or constant from a graph.
13. Find the x and y intercepts for: .
14. Be able to tell whether or not an equation or a graph is a (1-1) function.
15. Find the inverse of .
16. Find the domain and range of  if .
17. If we make a box out of a 12” x 30” sheet of cardboard by cutting squares of equal size out of each corner and folding the edges, what is the volume of the box in terms of x?
18. Graph .
19. Graph the absolute value of the previous problem.