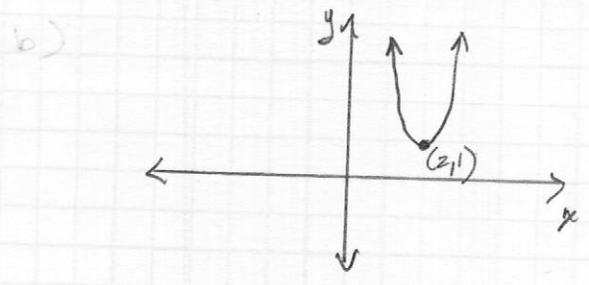
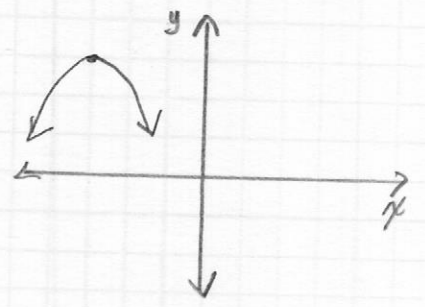


# ALG 2 chapter 4 Summary Classwork Answer Key

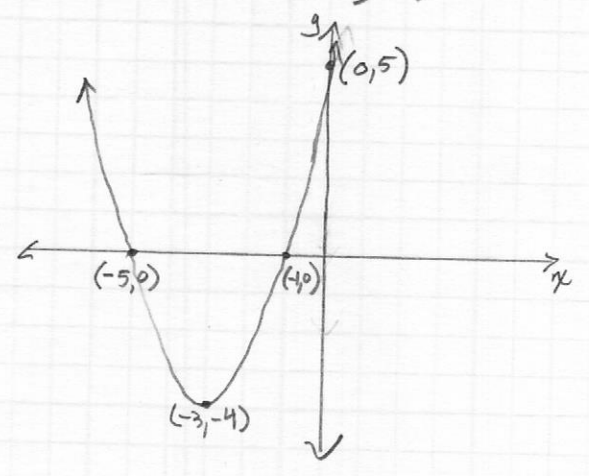
1) a) Vertex:  $(2, 1)$  A.O.S.:  $x = 2$  Minimum: 1  
 Domain:  $-\infty < x < \infty$  Range:  $y \geq 1$



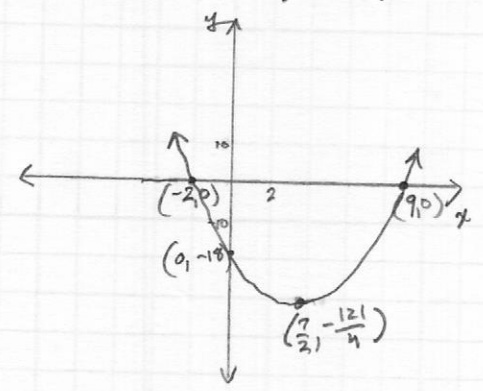
b) Vertex:  $(-3, 3)$  A.O.S.:  $x = -3$  Maximum: 3  
 Domain:  $-\infty < x < \infty$  Range:  $y \leq 3$



2) a) Vertex:  $(-3, -4)$  A.O.S.:  $x = -3$  x-intercepts:  $(-1, 0)$  and  $(-5, 0)$   
 y-intercept:  $(0, 5)$



a) b) Vertex:  $(\frac{7}{2}, -\frac{121}{4})$  A.O.S.:  $x = \frac{7}{2}$  x-intercepts:  $(-2, 0)$  and  $(9, 0)$   
 y-intercept:  $(0, -18)$



ALG 2 Chapter 4 Summary Classwork Answer Key (cont)

3) a)  $(3x-4)(x+5)$       b)  $(3x+5)(3x+5)$   
c)  $3x(x-4)(x-3)$       d)  $(5x-2)(5x+2)$

4) a)  $x=6$       b)  $x=-4$  or  $x=\frac{1}{3}$   
c) Prime; discriminant  $d=-11$ ;  $x=\frac{5\pm i\sqrt{11}}{2}$   
d)  $x=\frac{3\pm\sqrt{21}}{2}$

5) a)  $-1-9i$       b)  $46+i$       c)  $-1+22i$

6) a)  $(-5, 0)$  or  $(3, 8)$   
b)  $(-2, 4)$