



29) For the function: f(x) = 3x2 + 6x - 24, provide the following information, graph, and label as noted.

 Factor the quadratic in order to get the x-intercepts.



a) X-intercepts: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) Line of Symmetry:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) Y-intercept:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e) Max / Min and Value: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

f) Stretched, compressed, or neither (circle one)

g) Label the intercepts and vertex on the graph

30) For the function: *f(x)* = - 2 (x +1)- 3, provide the following information, graph, and label as noted.



a) Line of Symmetry:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) Y-intercept:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) Other points: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e) Max / Min Value: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

f) Stretched, compressed, or neither (circle one)

e) Stretched, compressed, or neither (circle one)

31) For the function: *f(x)* = ½ (x + 4)(x – 6), provide the following information, graph, and label as noted.

1. X-intercepts: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Line of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Y-intercept: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Max / Min Value: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

f) Stretched, compressed, or neither (circle one)

32) Solve the following system:

$$\left\{\begin{matrix}y=3x+1\\y=4-x^{2}\end{matrix}\right. $$

* 1. Graphically:
	2. Algebraically:



33)