Name:_____ Date: _____

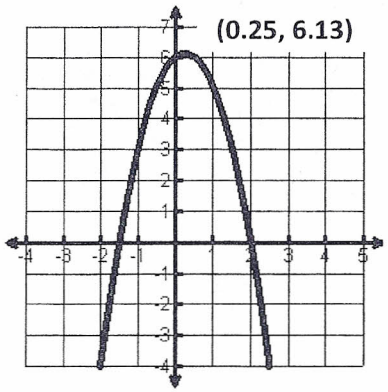
5. $f(x) = -2x^2 + x + 6$

Rel. Max: (.25, 6.13) Rel. Min: NA

Abs. Max: (.25, 6.13) Abs. Min: NA

Inc: $(-\infty, .25)$ Dec: $(.25, \infty)$

Domain: R Range: $(-\infty, 6.13)$



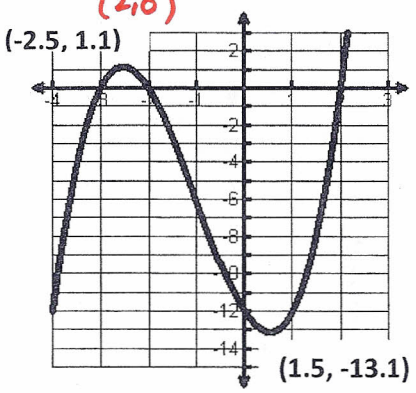
6. $f(x) = x^3 + 3x^2 - 4x - 12$

Rel. Max: (-2.5, 1.1) Rel. Min: (1.5, -13.1)

Abs. Max: NA Abs. Min: NA

Inc: $(-\infty, -2.5)(1.5, \infty)$ Dec: (-2.5, 1.5)

Roots: (-3,0) (-2,0) (2,0) y-int: (0, -12)



Identify the **y-intercept** and the **# of zeros**

7. $f(x) = x^3 - 16$

Y-Int: (0, -16) # of Zeros: 3

8. $f(x) = x^2 + x - 1$

Y-Int: (0, -1) # of Zeros: 2

9. $f(x) = 9x^4 + x^3 - 3x - 10$

Y-Int: (0, -10) # of Zeros: 4

10. $f(x) = x^3 - x - 2$

Y-Int: (0, -2) # of Zeros: 3

11. $f(x) = 7x$

Y-Int: (0, 0) # of Zeros: 1

12. $f(x) = -2x^3 + 7$

Y-Int: (0, 7) # of Zeros: 3