

Name: _____

Math 80 Worksheet #4
February 16, 2007

1. Graph the degree 2 polynomial $y = \frac{1}{2}x^2 + 2$. What is the vertex? What is the line of symmetry?

2. Perform each indicated operation. Simplify your answer as much as possible.

(a) $(3s^2 + 4s) + (-s^2 + 5s - 3)$

(b) $(7x^2y - 3xy + xy^2) - (4x^2y - 3xy - xy^2)$

(c) $(-6a^3) \cdot (2b)$

(d) $3b(2b^2 - \frac{1}{3}b + 4)$

(e) $(6t + 2) \cdot (-2t^3 + 3t^2 - t)$

(f) $(2x - 4) \cdot (3x + 1)$

(g) $(10a + 2)^2$

(h) $(y - 3)(y + 3)$

(i) $\frac{25x^3 - 15x^2 + 2x}{-5x^2}$

(j) $(4a^2b + 10ab - 6ab^3) \div 2ab^2$