Calculus 12
9-1 Intercepts and Symmetry

1. Find the intercept of the following curves:
a) $y = 4x^2 - 9$
b) $y = 3x^2 + 5x + 2$
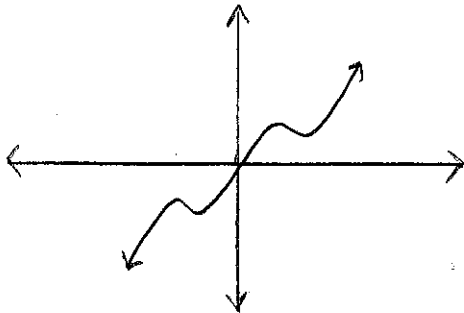c) $y = x^2 + x - 6$
d) $y = x^2 + x + 1$
e) $y = 2x^3 - 9x^2 - 18x$
f) $y = x^3 - 8$
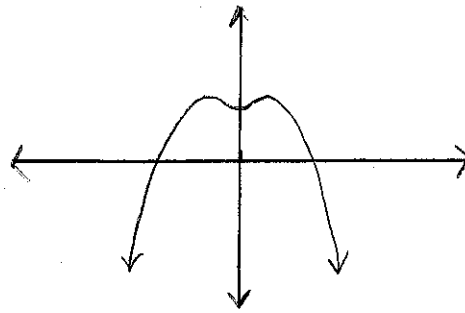
2. State whether the functions of the following graphs are even, odd, or neither.
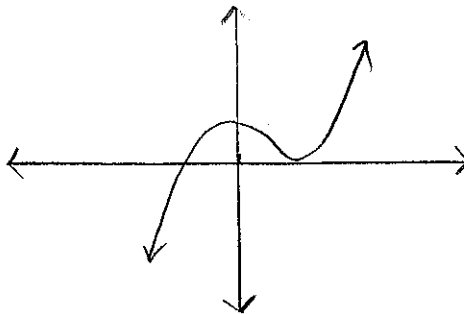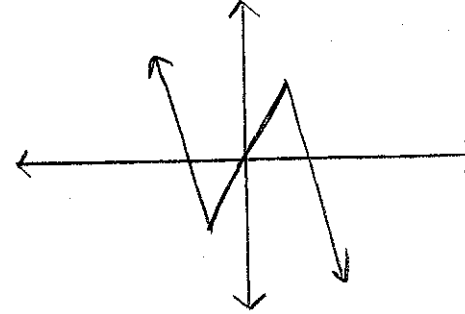a)   b)

c)   d)

3. Determine whether the function is even, odd, or neither.
a) $f(x) = x^2$
b) $f(x) = x^3$
c) $g(x) = x^2 + x^3$
d) $g(x) = \dfrac{2}{x^4 + 1}$
e) $h(x) = (x + x^5)^3$
f) $h(x) = x^6(1 + x - x^2)$
g) $y = |x|$
h) $y = \dfrac{x^3}{x^4 + x^2 + 1}$