

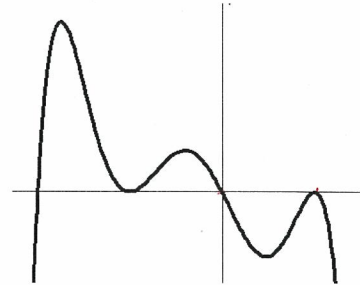
Name _____

Polynomial More Review For QUIZ.doc

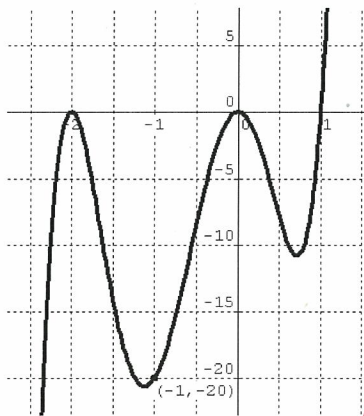
1) For the graph below: determine the degree, and if the coefficient of the highest term is positive or negative:

Degree 6

Positive or Negative —



2) Find a possible equation for the graph of the polynomial below.



$$y = k(x+2)^2(x)^2(x-1)$$

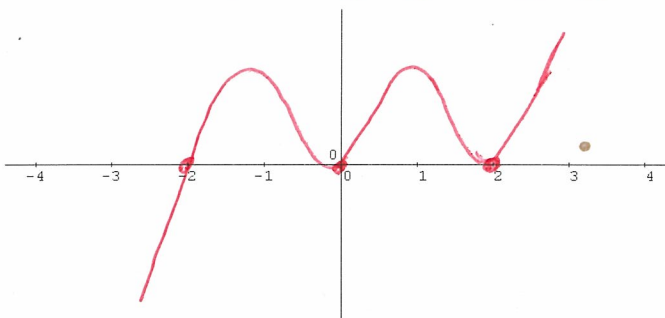
$$-20 = k(1)^2(-1)^2(-2)$$

$$k = \frac{-20}{-2} = 10$$

$$y = 10(x+2)^2(x)^2(x-1)$$

3) Sketch the following polynomials:

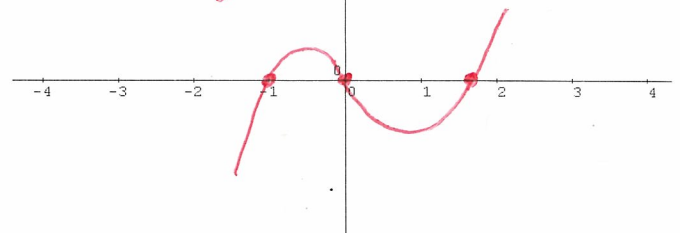
a) $f(x) = x^2(x-2)^2(x+2)$
 $x=0 \quad x=2 \quad x=-2$



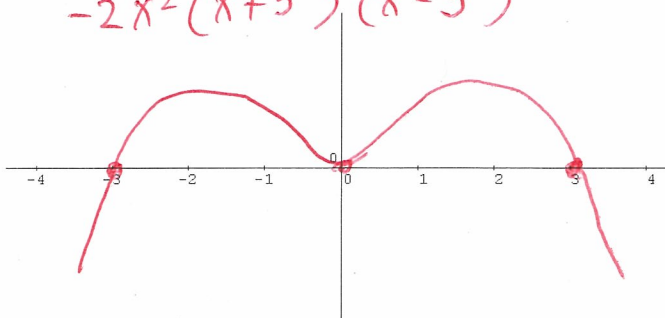
b) $f(x) = 3x^3 - 2x^2 - 5x$

$$x(3x-5)(x+1)$$

$$x=0 \quad x=\frac{5}{3} \quad x=-1$$



c) $f(x) = -2x^4 + 18x^2$
 $-2x^2(x+3)(x-3)$



d) $f(x) = 4x^2 - 15x - 4$
 $(4x+1)(x-4)$
 $x=-\frac{1}{4} \quad x=4$

