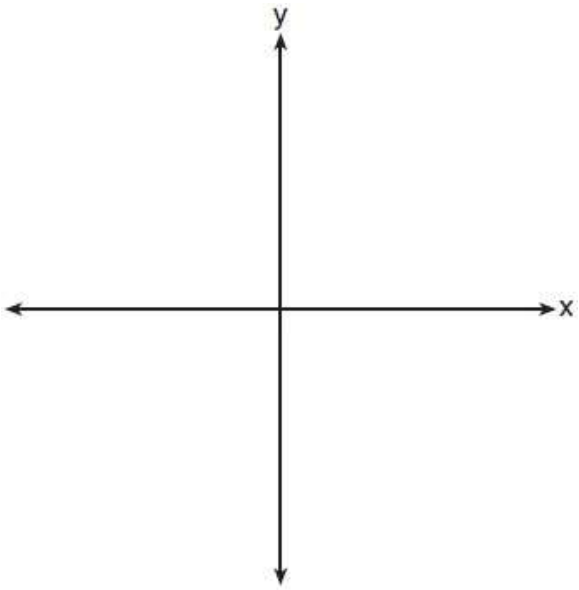
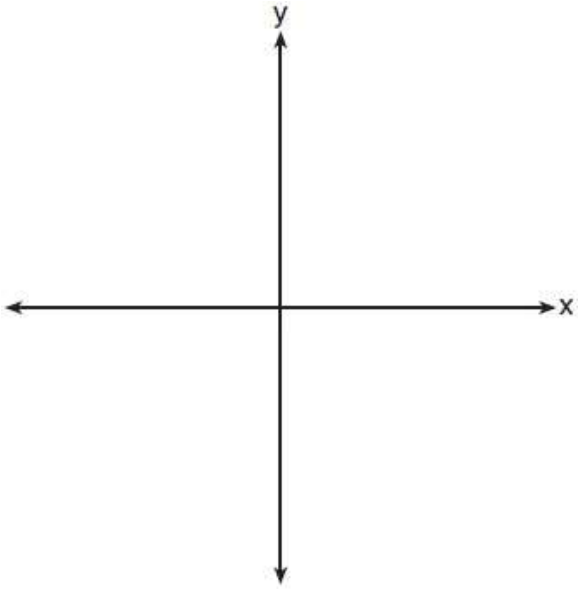
Name _____ Date _____
Mr. Schlansky Algebra II

Sketching Polynomial Equations

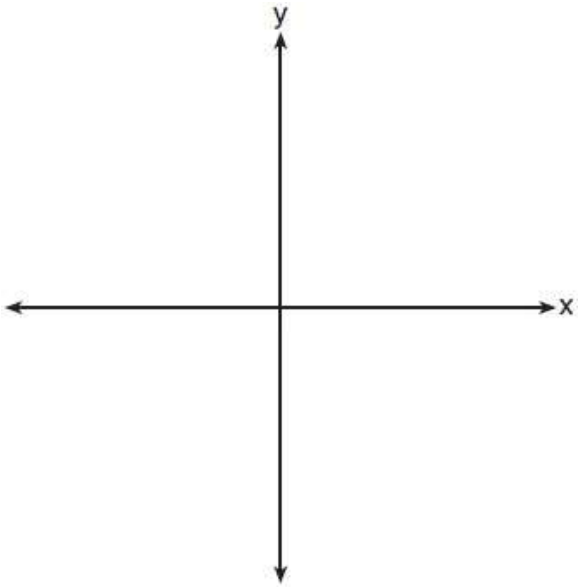
1. On the grid below, sketch a cubic polynomial whose zeros are 1, 3, and -2.



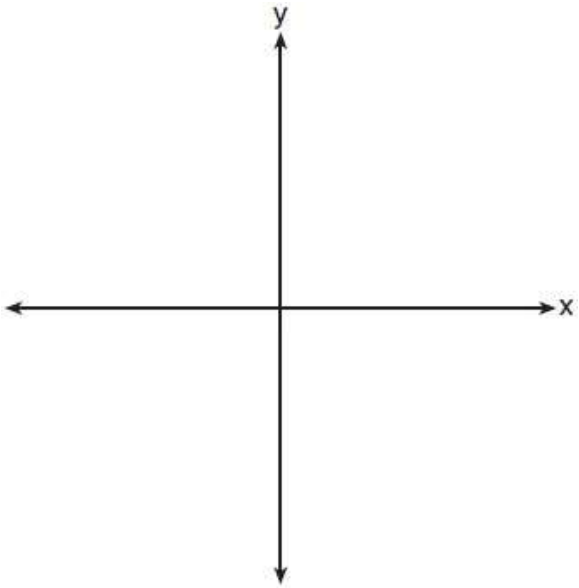
2. The zeros of a quartic polynomial function are 2, −2, 4, and −4. Use the zeros to construct a possible sketch of the function, on the set of axes below.



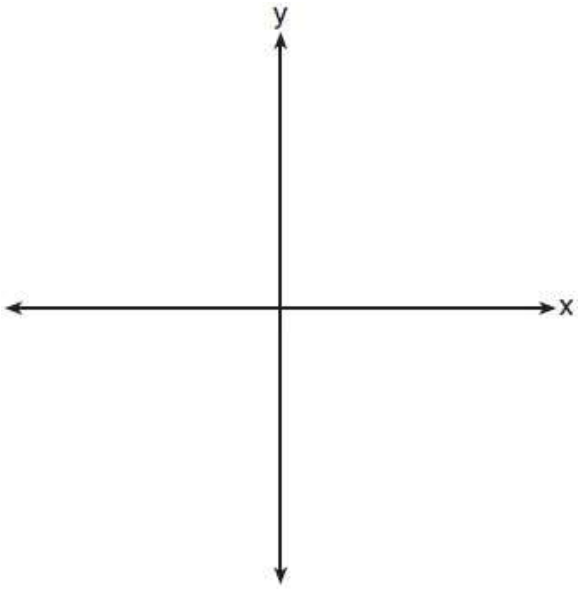
3. The zeros of a quartic polynomial function *h* are -2, 1, 1, and 3. Sketch a graph of $y = h(x)$ on the grid below.



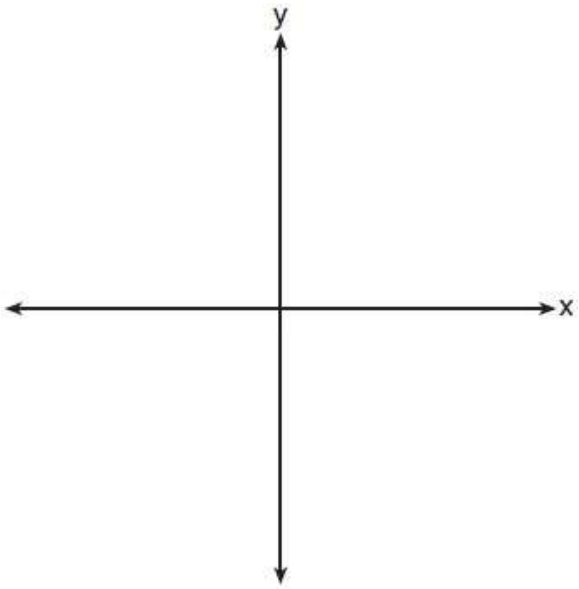
4. The zeros of a polynomial function are $-5, -5, \pm 2,$ *and* 0. Sketch a graph of the polynomial functions on the grid below.



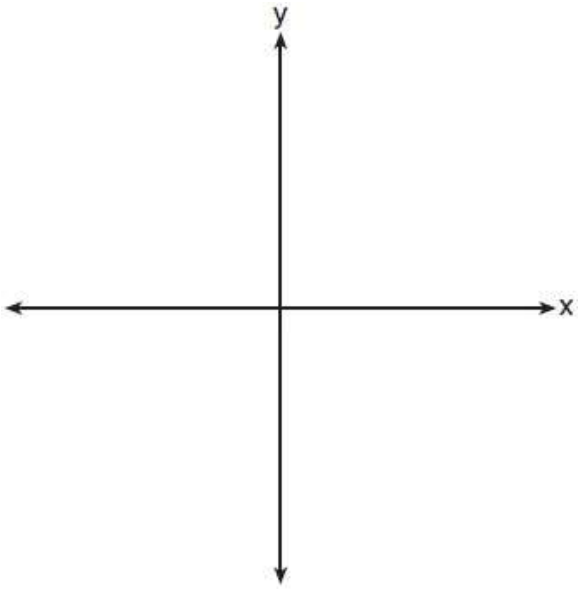
5. On the grid below, sketch a cubic polynomial whose factors are $x-3$, $x+4$, and $x+2$.



6. On the grid below, sketch a quartic polynomial whose factors are $x+5$, $x+2$, $x+2$, and $x-4$.



7. On the grid below, sketch a cubic polynomial whose factors are $x-3$ and $x^2+8x+16$.



8. On the grid below, sketch a quartic polynomial whose factors are x^2-4x+4 and $x^2+10x+25$.