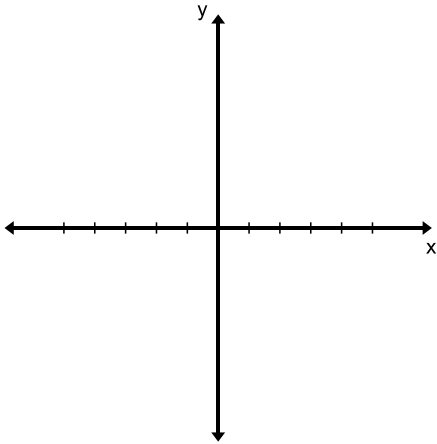
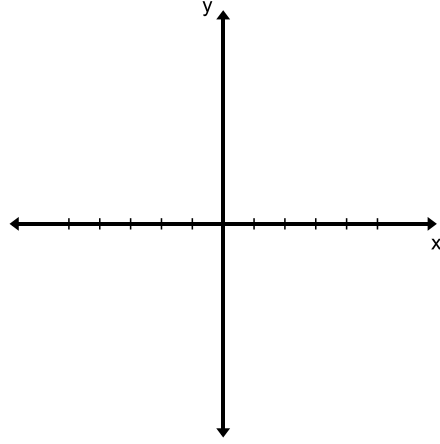


**WITHOUT a calculator, sketch the following equations.**

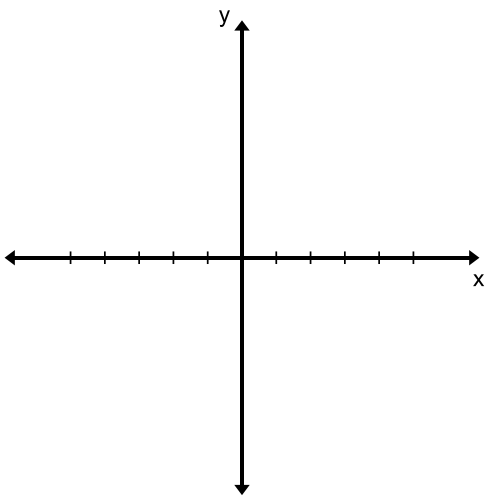
1.)  $y = -(x-2)(x-4)$



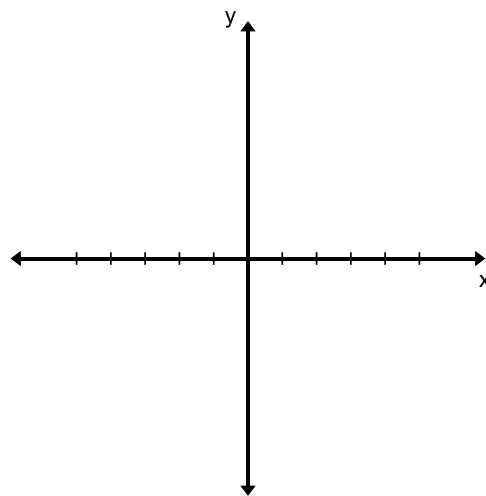
2.)  $y = -x(x-3)$



3.)  $f(x) = x(x+3)(x-2)(x-5)$

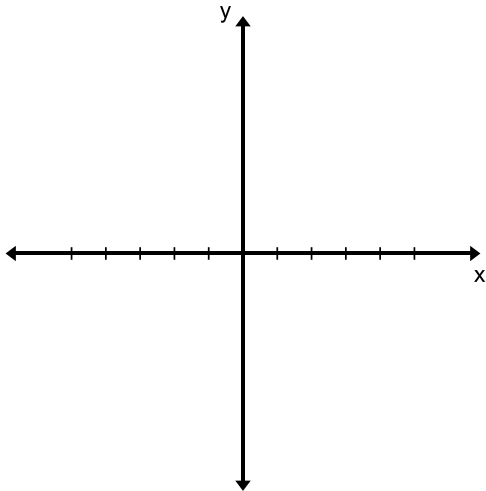


4.)  $y = -x(x-2)(x+4)$

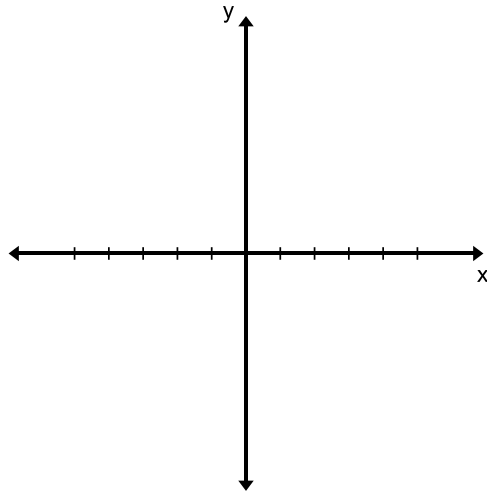


**WITHOUT a calculator, sketch the following equations.**

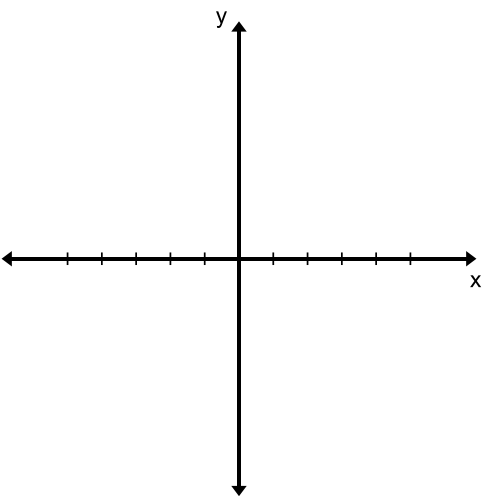
5.)  $y = x(x-4)(x+3)(x+1)$



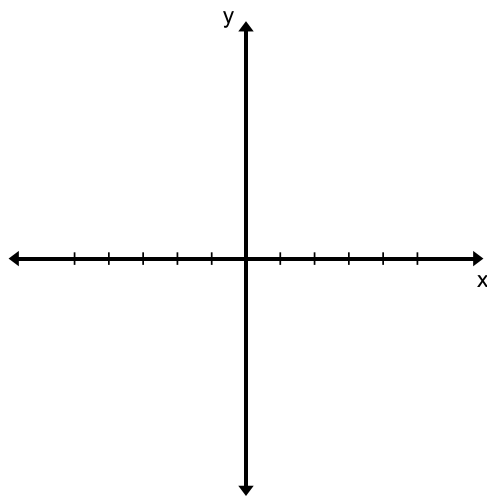
6.) Sketch a polynomial with zero's  $-3, -1, 2$ .



7.)  $y = -x(x-2)(x-1)(x+5)$

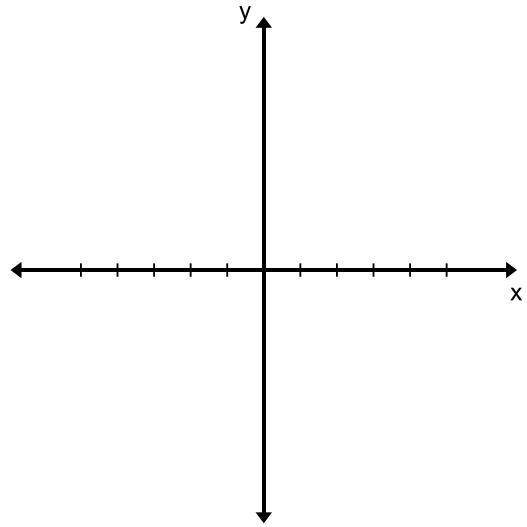


8.) Sketch a polynomial with zero's  $0, 2, 5$ .



**WITHOUT a calculator, sketch the following equations.**

9.)  $y = x^3 + 4x^2 - 5x$



10.) A cubic function is graphed on the set of axes.

Which function could represent this graph?

(a)  $f(x) = (x-3)(x-1)(x+1)$

(b)  $g(x) = (x+3)(x+1)(x-1)$

(c)  $h(x) = (x-3)(x-1)(x+3)$

(d)  $k(x) = (x+3)(x+1)(x-3)$

