

WORKSHEET 2.9 PART 1 – Graphing Polynomial Functions



Name: _____ Hour: _____ Date: _____

DIRECTIONS: Graph each polynomial function. (2.3.A)

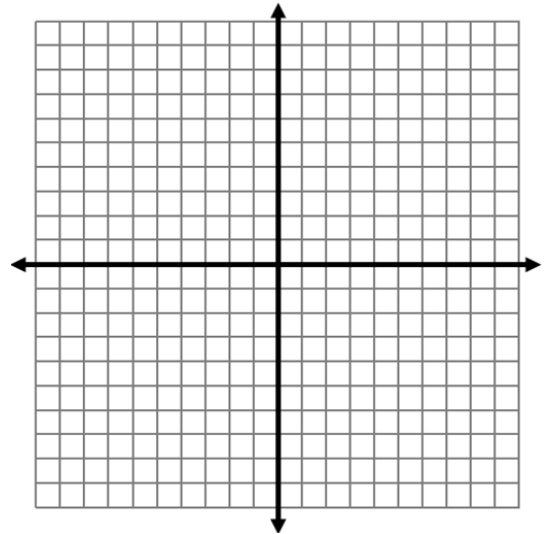
1) $f(x) = (x - 6)(x - 1)(x + 2)$

x-intercepts:

$f(x) \rightarrow$ _____ as $x \rightarrow -\infty$

$f(x) \rightarrow$ _____ as $x \rightarrow +\infty$

x	y



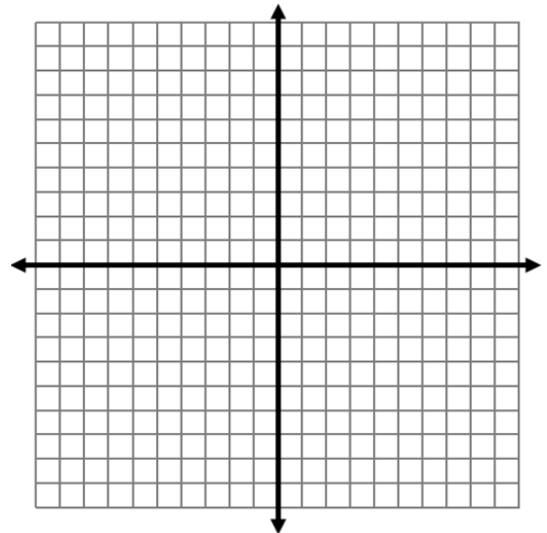
2) $f(x) = -2(x - 1)(x + 4)^2$

x-intercepts:

$f(x) \rightarrow$ _____ as $x \rightarrow -\infty$

$f(x) \rightarrow$ _____ as $x \rightarrow +\infty$

x	y



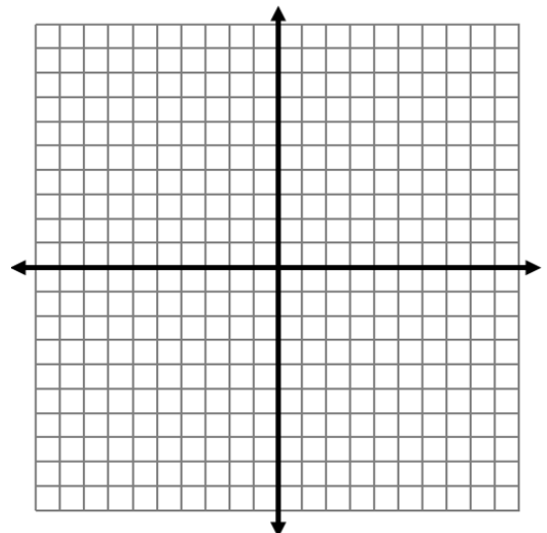
3) $f(x) = 3x(x + 4)(x - 6)$

x-intercepts:

$f(x) \rightarrow$ _____ as $x \rightarrow -\infty$

$f(x) \rightarrow$ _____ as $x \rightarrow +\infty$

x	y



DIRECTIONS: Graph each polynomial function. (2.3.A)

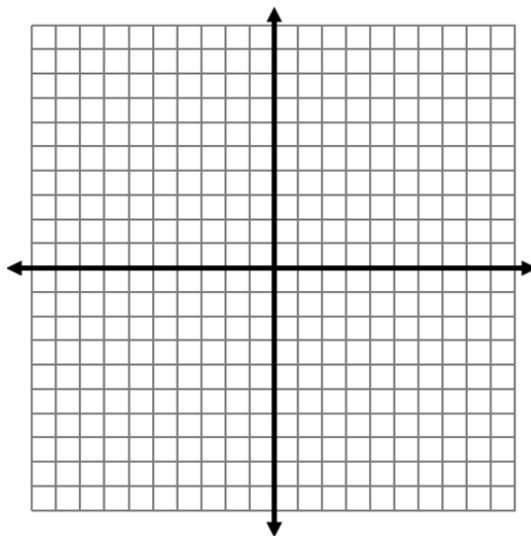
4) $f(x) = (x + 1)(x - 2)(x - 4)(x - 6)$

x-intercepts:

$f(x) \rightarrow$ _____ as $x \rightarrow -\infty$

$f(x) \rightarrow$ _____ as $x \rightarrow +\infty$

x	y



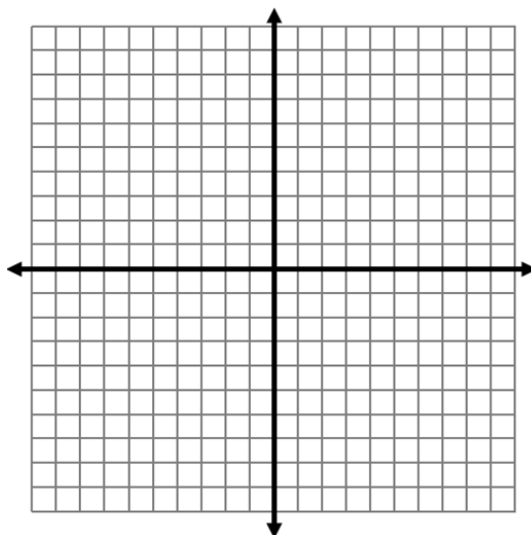
5) $f(x) = -(x + 3)(x + 1)(x - 2)(x - 6)$

x-intercepts:

$f(x) \rightarrow$ _____ as $x \rightarrow -\infty$

$f(x) \rightarrow$ _____ as $x \rightarrow +\infty$

x	y



6) $f(x) = x^2(x + 8)(x + 5)$

x-intercepts:

$f(x) \rightarrow$ _____ as $x \rightarrow -\infty$

$f(x) \rightarrow$ _____ as $x \rightarrow +\infty$

x	y

