

Name: Key

Hour: _____ Date: _____

Graphing (Factored) Polynomials Practice I

For each of the following (factored) polynomials:

a) Find the zeros

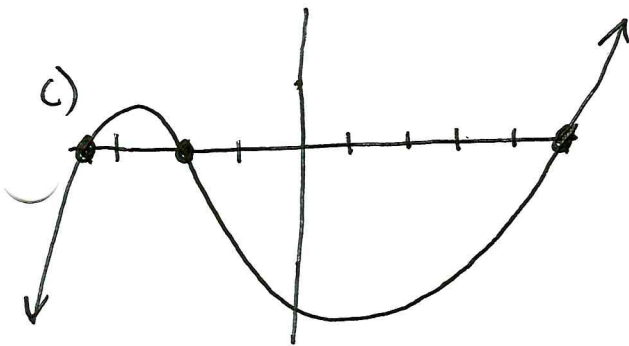
b) Determine if the polynomial is positive/negative and even/odd and use arrows to represent the end behavior.

c) Graph the polynomial

1) $y = (x - 5)(x + 2)(x + 4)$

a) $x = 5$ $x = -2$ $x = -4$

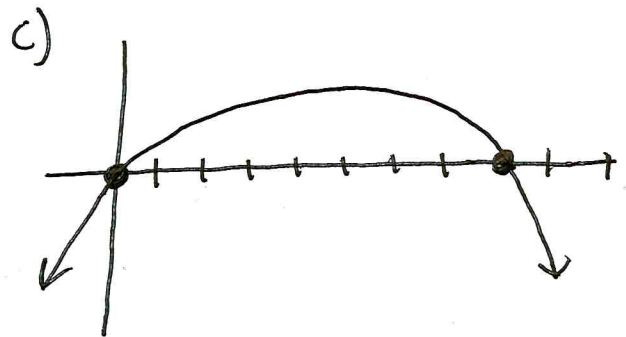
b) positive odd $\downarrow \uparrow$



2) $y = -x(x - 8)$

a) $x = 0$ $x = 8$

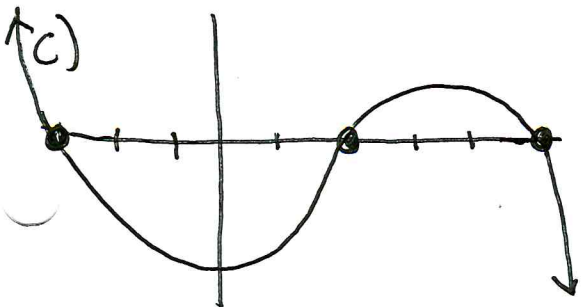
b) negative even $\downarrow \downarrow$



3) $y = -(x - 2)(x - 5)(x + 3)$

a) $x = 2$ $x = 5$ $x = -3$

b) negative odd $\uparrow \downarrow$

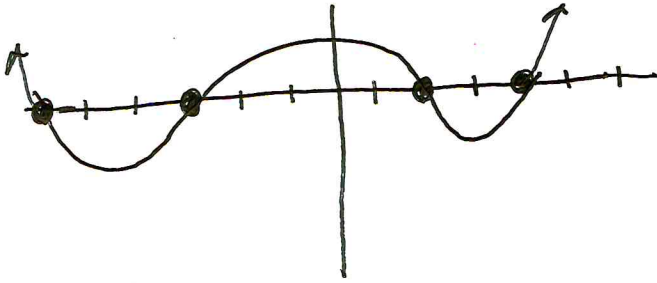


$$4) y = (2x + 6)(x - 2)(x + 6)(x - 4)$$

$$a) x = -3 \quad x = 2 \quad x = -6 \quad x = 4$$

b) positive even $\uparrow \uparrow$

c)

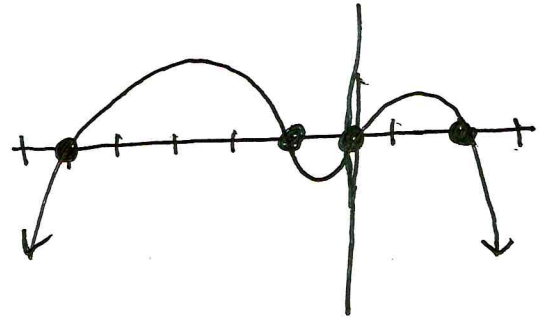


$$5) y = -x(x - 2)(x + 5)(x + 1)$$

$$a) x = 0 \quad x = 2 \quad x = -5 \quad x = -1$$

b) negative even $\downarrow \downarrow$

c)



$$6) y = (x + 3)(x - 1)(x + 5)(x - 4)$$

$$a) x = -3 \quad x = 1 \quad x = -5 \quad x = 4$$

b) positive even $\uparrow \uparrow$

