

Practice: Understanding Factored Form - Day 2

Name: _____

$A(x-r_1)(x-r_2)$

1. Given: $f(x) = (x-2)(x+4)$

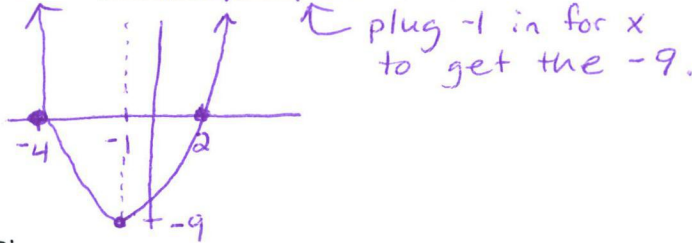
What is the a value? $a=1$

Which tells us what? opens up

What are the zeros? (2,0) (-4,0)

Find the AOS using the zeros: $\frac{2+(-4)}{2} = -1$ $x=-1$

Find the Vertex: (-1, -9)



Try These:

3. Given: $f(x) = -16(x+1)(x-5)$

What is the a value? -16

Which tells us what? opens down

What are the zeros? (-1,0) (5,0)

Find the AOS using the zeros: $\frac{-1+5}{2} = 2$ $x=2$

Find the Vertex: (2, -144)

5. Given: $f(x) = 2(x-2)(x+4)$

What is the a value? 2

Which tells us what? opens up

What are the zeros? (2,0) (-4,0)

Find the AOS using the zeros: $\frac{2+(-4)}{2} = \frac{-2}{2} = -1$ $x=-1$

Find the Vertex: (-1, -18)

2. Given: $f(x) = -3(x-6)(x-2)$

What is the a value? -3

Which tells us what? opens down

What are the zeros? (6,0) (2,0)

Find the AOS using the zeros: $\frac{6+2}{2} = \frac{8}{2} = 4$ $x=4$

Find the Vertex: (4, 12)

4. Given: $f(x) = (x+7)(x+4)$

What is the a value? 1

Which tells us what? opens up

What are the zeros? (-7,0)

Find the AOS using the zeros: $\frac{-7+(-4)}{2} = \frac{-11}{2}$ $x=-5.5$

Find the Vertex: (-5.5, -2.25)

6. Given: $f(x) = (x-6)(x-2)$

What is the a value? 1

Which tells us what? opens up

What are the zeros? (6,0) (2,0)

Find the AOS using the zeros: $x=4$

Find the Vertex: (4, -4)