Unit 3. Section 4. Factor Form. Practice.

Exercise 1. Match the name of the form with the equation

A) Standard Form B) Vertex Form C) Factor Form	Write the letter corresponding to the name of the form in the blank space. __ $f(x) = (x - 1)^2 + 2$ __ $f(x) = (x - 1)(x + 2)$ __ $f(x) = a(x - p)(x - q)$ __ $f(x) = ax^2 + bx + c$ __ $f(x) = a(x - h)^2 + k$ __ $f(x) = 2x^2 - 1$

Exercise 2. Factor form to standard form

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

Calculate the standard form equation of f

Exercise 3. Factor form to standard form

$f(x) = (x + 2)(x + 5)$

Calculate the standard form equation of f
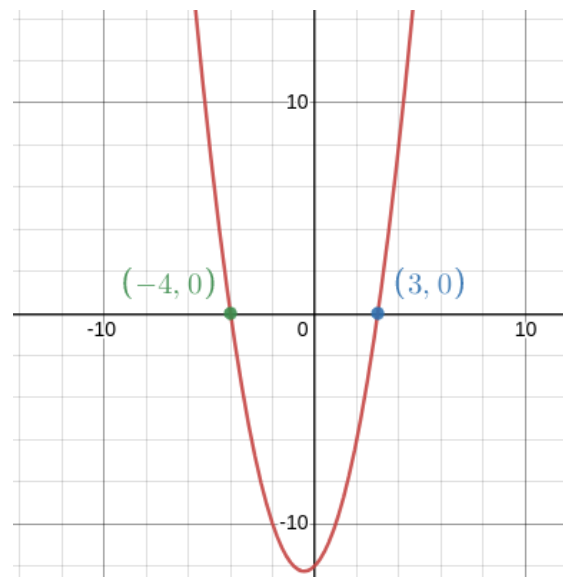
Exercise 4. Factor form to standard form

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

Calculate the standard form equation of f

Exercise 5. Zeros in factor form

$f(x) = (x - 7)(x + 20)$

For what values of x is $f(x) = 0$? Why?

Exercise 6. Graph to factor form

$(-4, 0)$ $(3, 0)$

Write the factor form equation of a quadratic function with $a = 1$ and the graph shown on the left.

$f(x) = $ _____

Exercise 7. Split the middle

Use *split the middle* method to covert the following function to standard form.

$$f(x) = x^2 - x - 30$$

Exercise 8. Split the middle

Use *split the middle* method to covert the following function to standard form.

$$f(x) = x^2 - x - 72$$

Exercise 9. Split the middle

Use *split the middle* method to covert the following function to standard form.

$$f(x) = x^2 + 2x - 63$$

Exercise 10. Method from video

Use the method presented in the video shown in class to covert the following function to standard form.

$$f(x) = x^2 - 8x + 12$$

Exercise 11. Method from video

Use the method presented in the video shown in class to covert the following function to standard form.

$$f(x) = x^2 - 12x + 32$$