

Quadratic - Factored Form #4

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Question 1

Determine the interval over which a parabola is **negative** (below the x-axis) given the following information:

- the zeros are $(-1,0)$ and $(5,0)$
- it has a y-intercept of -9

Question 3

Determine the rule of a **quadratic function in factored form** given the following information:

- the only zero is located at $(2,0)$
- the y-intercept is 6

Question 2

Determine the rule of a **quadratic function in factored form** given the following information:

- the only zero is located at $(6,0)$
- the y-intercept is 9

Question 4

Determine the coordinates for the **y-intercept** of a parabola given the following information:

- the zeros are $(-4,0)$ and $(6,0)$
- it passes through the point $(3,14)$

Question 5

Determine the **x-intercept(s)** of the following quadratic function:

$$y = \frac{1}{2}x^2 - 2x - 16$$

Question 6

Determine the coordinates for the **y-intercept** of a parabola given the following information:

- the zeros are (-1,0) and (5,0)
- it passes through the point (3,-8)

Question 7

Determine the interval over which a parabola is **positive** (above the x-axis) given the following information:

- the zeros are (-2,0) and (3,0)
- it has a y-intercept of 6

Question 8

Determine the **x-intercept(s)** of the following quadratic function:

$$y = 2x^2 + 4x - 6$$

Question 9

Determine the **x-intercept(s)** of the following quadratic function:

$$y = 4x^2 - 24x + 36$$

Question 10

Determine the rule of a **quadratic function in factored form** given the following information:

- the only zero is located at $(-2,0)$
- the y-intercept is 8