

Algebra I: Unit 07 review: Write an equation for a parabola given a graph

1. Write an equation in factored form for a parabola that opens up and has x -intercepts at:

$$x = 2 \text{ and } x = 7$$

$$y = (x - 2)(x - 7)$$

2. The function $f(x)$ is graphed on the right.

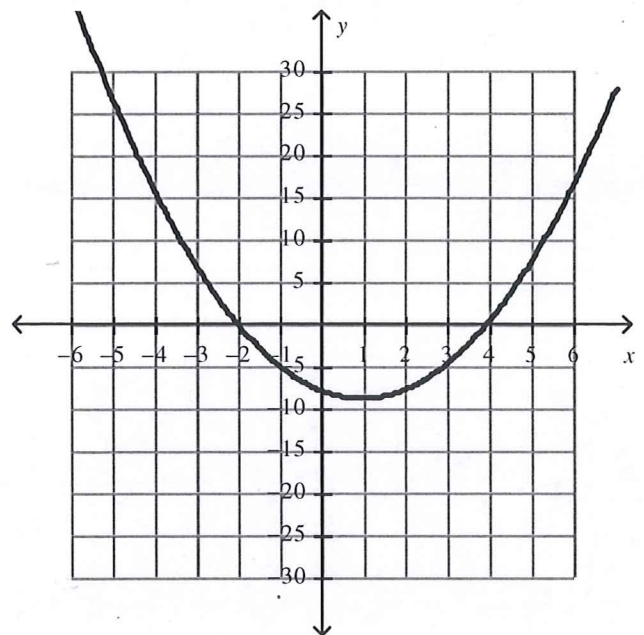
- a. Write an equation in factored form for $f(x)$.

$$\underline{f(x) = (x + 2)(x - 4)}$$

- b. The function $g(x)$ has the same x -intercepts as $f(x)$, but $g(x)$ opens down.

Write an equation in factored form for $g(x)$.

$$\underline{g(x) = -(x + 2)(x - 4)}$$



3. Write an equation in standard form for the parabola graphed on the right

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

	x	4
x	x^2	$4x$
-5	$-5x$	-20

$$\boxed{y = x^2 - x - 20}$$

