Name : _____ Date : _____

MATH MONKS

Introduction to Quadratic Function

➢ Evaluate each function at the specified value.

① $f(x) = -5x + 4x^2$; $x = -6$

② $f(x) = x^2 - 7x - 13$; $x = 6$

③ $f(x) = -6x^2 - 24x + 7$; $x = -1$

④ $f(x) = -x^2 + 2x$; $x = 0$

➢ Complete each function table.

⑤ $f(x) = 2x^2 - 8x + 13$

x					
$f(x)$					

⑥ $f(x) = 81x^2 + 18x - 17$

x					
$f(x)$					

➢ Find a quadratic function with the given vertex and passing through the given point.

⑦ Vertex (1, 3).
passing through (4, -2)

⑧ Vertex (4, 0).
passing through (7, 8)

Name : _____ Date : _____ MATH MONKS

Introduction to Quadratic Function

Answers

➢ Evaluate each function at the specified value.

① $f(x) = -5x + 4x^2$; $x = -6$

174

② $f(x) = x^2 - 7x - 13$; $x = 6$

-19

③ $f(x) = -6x^2 - 24x + 7$; $x = -1$

25

④ $f(x) = -x^2 + 2x$; $x = 0$

0

➢ Complete each function table.

⑤ $f(x) = 2x^2 - 8x + 13$

x	0	1	2	3	4
$f(x)$	13	7	5	7	13

⑥ $f(x) = 81x^2 + 18x - 17$

x	$-\frac{1}{3}$	$-\frac{2}{9}$	$-\frac{1}{9}$	0	$\frac{1}{9}$
$f(x)$	-14	-17	-18	-17	-14

➢ Find a quadratic function with the given vertex and passing through the given point.

⑦ Vertex (1, 3).
passing through (4, -2)

$f(x) = -\frac{5}{9}(x - 1)^2 + 3$

⑧ Vertex (4, 0).
passing through (7, 8)

$f(x) = \frac{8}{9}(x - 4)^2$