Names: _____

_____

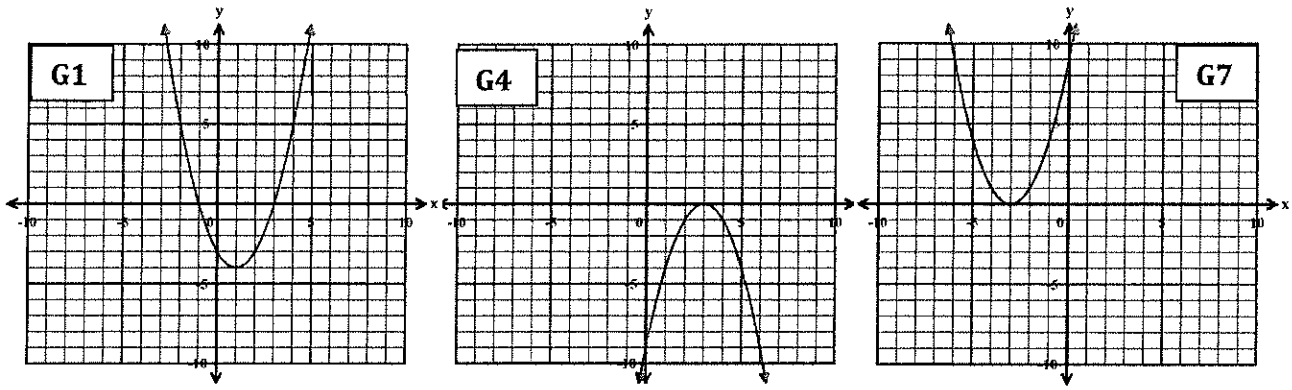
Period _____

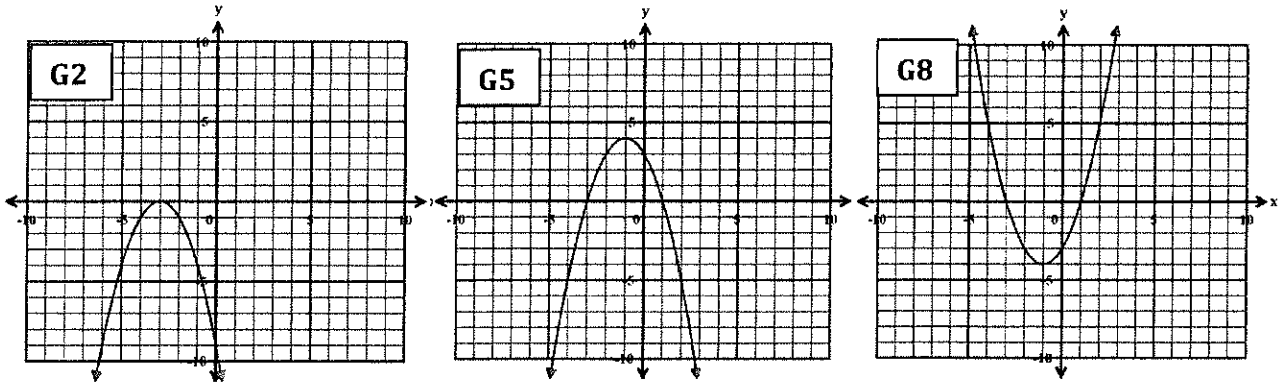
Instructions:

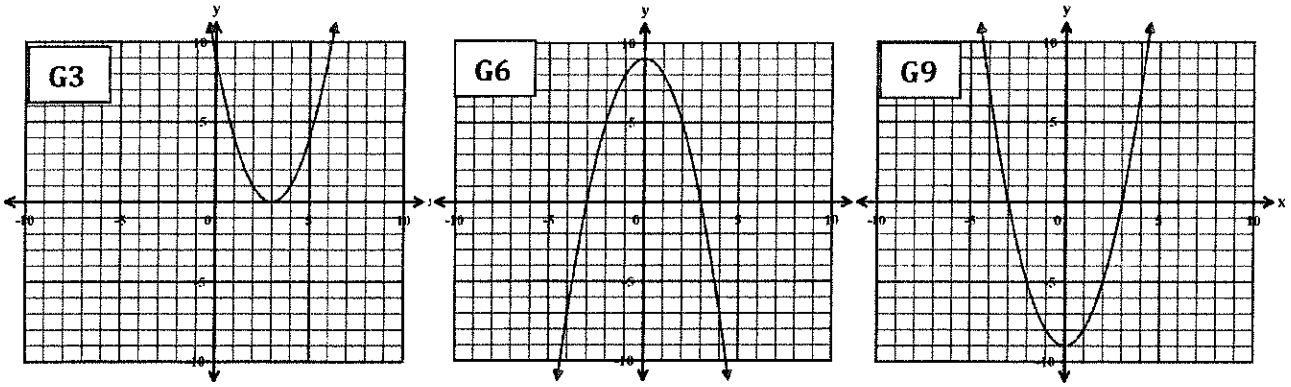
For each graph on the following page, find the matching equations in Vertex Form, Standard Form, and Factored Form. Then, find the important details that match each graph.

List the Equation number (i.e. V1 stands for Vertex Form 1)

Graph	Vertex Form	Standard Form	Factored Form	Description
G1				
G2				
G3				
G4				
G5				
G6				
G7				
G8				
G9				


G1
G4
G7


G2
G5
G8


G3
G6
G9

S1

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

S4

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

S7

$f(x) = -x^2 + 6x - 9$

S2

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

S5

$f(x) = -x^2 - 6x - 9$

S8

$f(x) = x^2 + 6x + 9$

S3

$f(x) = x^2 - 6x + 9$

S6

$f(x) = -x^2 + 9$

S9

$f(x) = x^2 - 9$

V1

$f(x) = (x - 1)^2 - 4$

V4

$f(x) = -x^2 + 9$

V7

$f(x) = (x + 1)^2 - 4$

V2

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

V5

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

V8

$f(x) = x^2 - 9$

V3

$f(x) = -(x + 1)^2 + 4$

V6

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

V9

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

I1

$f(x) = (x + 3)(x - 1)$

I2

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

I3

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

I4

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

I5

$f(x) = (x - 3)(x + 1)$

I6

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

I7

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

I8

$f(x) = -(x + 3)(x - 1)$

I9

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

D1

x-intercepts: (−3, 0) (3, 0)
y-intercept: (0, 9)

vertex: (0, 9)

D2

x-intercept: (−3, 0)
y-intercept: (0, 9)

vertex: (−3, 0)

D3

x-intercept: (−3, 0)
y-intercept: (0, −9)

vertex: (−3, 0)

D4

x-intercept: (3, 0)
y-intercept: (0, −9)

vertex: (3, 0)

D5

x-intercepts: (−3, 0) (1, 0)
y-intercept: (0, −3)

vertex: (−1, −4)

D6

x-intercepts: (3, 0) (−1, 0)
y-intercept: (0, −3)

vertex: (1, −4)

D7

x-intercepts: (−3, 0) (3, 0)
y-intercept: (0, −9)

vertex: (0, −9)

D8

x-intercept: (3, 0)
y-intercept: (0, 9)

vertex: (3, 0)

D9

x-intercepts: (−3, 0) (1, 0)
y-intercept: (0, 3)

vertex: (−1, 4)