

Names: Key

Period _____

Instructions:

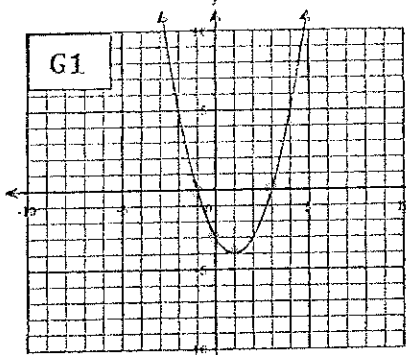
For each graph on the following page, find the matching equations in Vertex Form, Standard Form, and Factored Form. Then, find the important details that match each graph.

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

Graph	Vertex Form	Standard Form	Factored Form	Description
G1	V1	S2	I5	D6
G2	V9	S5	I2	D3
G3	V6	S3	I9	D8
G4	V5	S7	I4	D4
G5	V3	S1	I8	D9
G6	V4	S6	I7	D1
G7	V2	S8	I6	D2
G8	V7	S4	I1	D5
G9	V8	S9	I3	D7

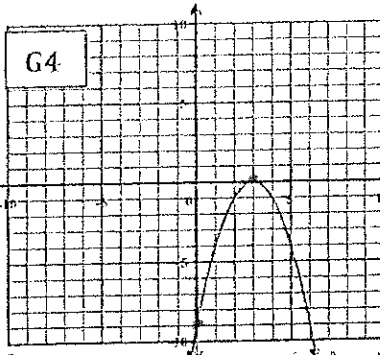
+a

y-int: $y = -3$
x-ints: $x = -1, 3$
V: $(1, -4)$



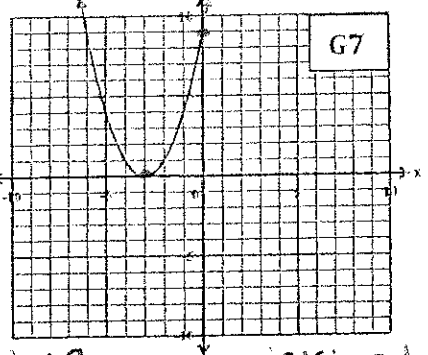
-a

y-int: $y = -9$
x-ints: $x = 3$
V: $(3, 0)$



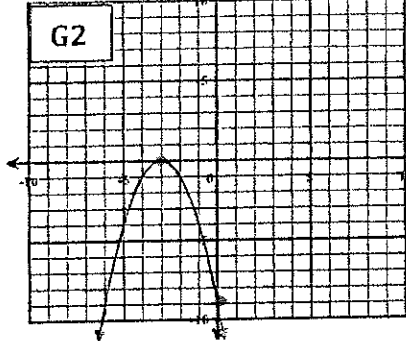
+a

y-int: $y = 9$
x-ints: $x = -3$
V: $(-3, 0)$



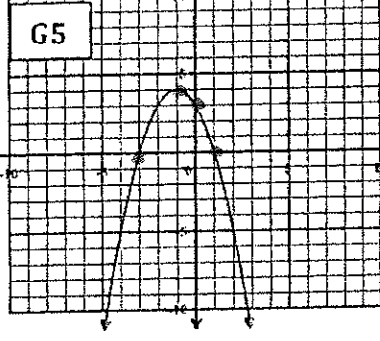
-a

y-int: $y = -9$
V: $(-3, 0)$



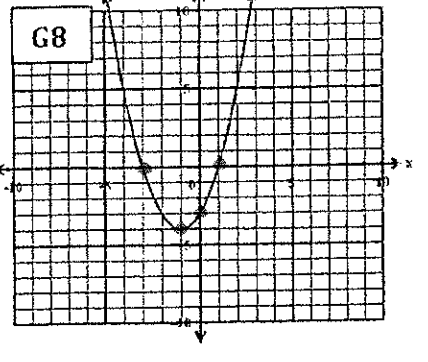
-a

y-int: $y = 3$
V: $(1, 4)$

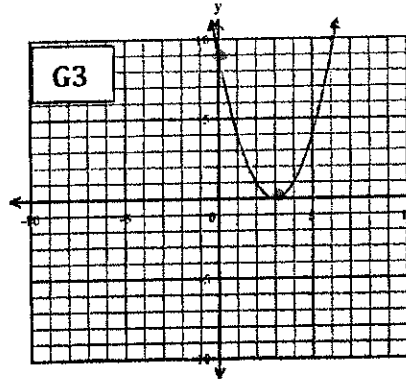


+a

y-int: $y = -3$
V: $(-1, -4)$



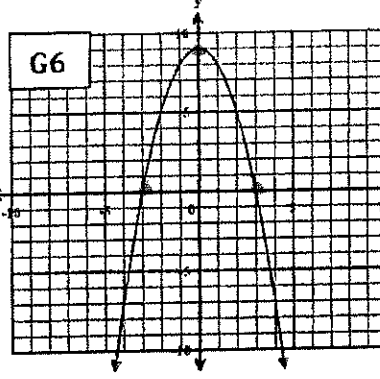
G3



+a

y-int: $y = 9$
x-ints: $x = 3$
V: $(3, 0)$

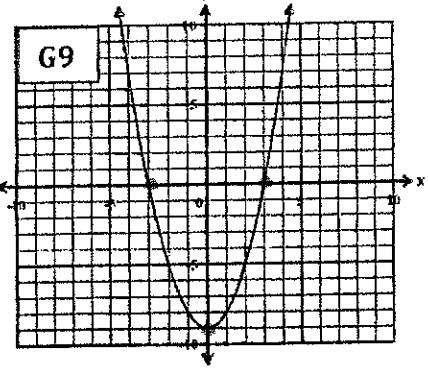
G6



-a

y-int: $y = 9$
x-ints: $x = -3, +3$
V: $(0, 9)$

G9



+a

y-int: $y = -9$
x-ints: $x = -3, +3$
V: $(0, -9)$

S1 G5

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

S4 G8

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

S7 G4

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

S2 G1

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

S5 G2

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

S8 G7

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

S3 G3

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

S6 G0

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

S9 G9

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

V1 G1

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

V4 G0

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

V7 G8

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

V2 G7

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

V5 G4

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

V8 G9

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

V3 G5

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

V6 G3

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

V9 G2

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

11. G8

$$f(x) = (x+3)(x-1) \\ = x^2 + 2x - 3$$

12. G2

$$f(x) = -(x+3)(x+3) \\ = -x^2 - 6x - 9$$

13. G9

$$f(x) = (x-3)(x+3) \\ = x^2 - 9$$

14. G4

$$f(x) = -(x-3)(x-3) \\ = -x^2 + 6x - 9$$

15. G1

$$f(x) = (x-3)(x+1) \\ = x^2 - 2x - 3$$

16. G7

$$f(x) = (x+3)(x+3) \\ = x^2 + 6x + 9$$

17. G6

$$f(x) = -(x-3)(x+3) \\ = -x^2 + 9$$

18. G5

$$f(x) = -(x+3)(x-1) \\ = -x^2 - 2x + 3$$

19. G3

$$f(x) = (x-3)(x-3) \\ = x^2 - 6x + 9$$

D1. G6

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

D4. G4

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

D7. G9

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

D2. G1

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

D5. G8

x-intercepts: (-3, 0) (1, 0)
y-intercept: (0, -3)
vertex: (-1, -4)

D8. G3

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

D3. G2

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

D6. G1

x-intercepts: (3, 0) (-1, 0)
y-intercept: (0, -3)
vertex: (1, -4)

D9. G5

x-intercepts: (-3, 0) (1, 0)
y-intercept: (0, 3)
vertex: (-1, 4)