Homework 10-27

① $y = x^2 - 2x - 4$

VF: $y = (x-1)^2 - 5$

V: $(1, -5)$

a of sym: $x = 1$

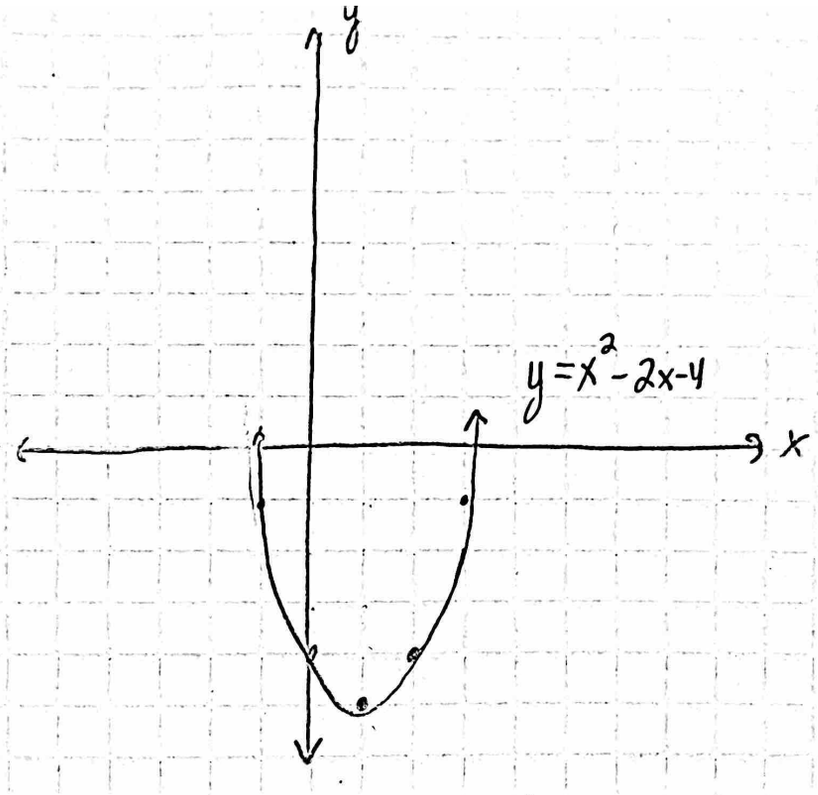
D: $(-\infty, \infty)$

R: $[-5, \infty)$

y-int: $(0, -4)$

x-int $(1 \pm \sqrt{5}, 0)$

-1	1
0	-4
1	-5
2	-4
3	1



② $y = 2x^2 - 4x + 1$

VF: $y = 2(x-1)^2 - 1$

V: $(1, -1)$

a of sym: $x = 1$

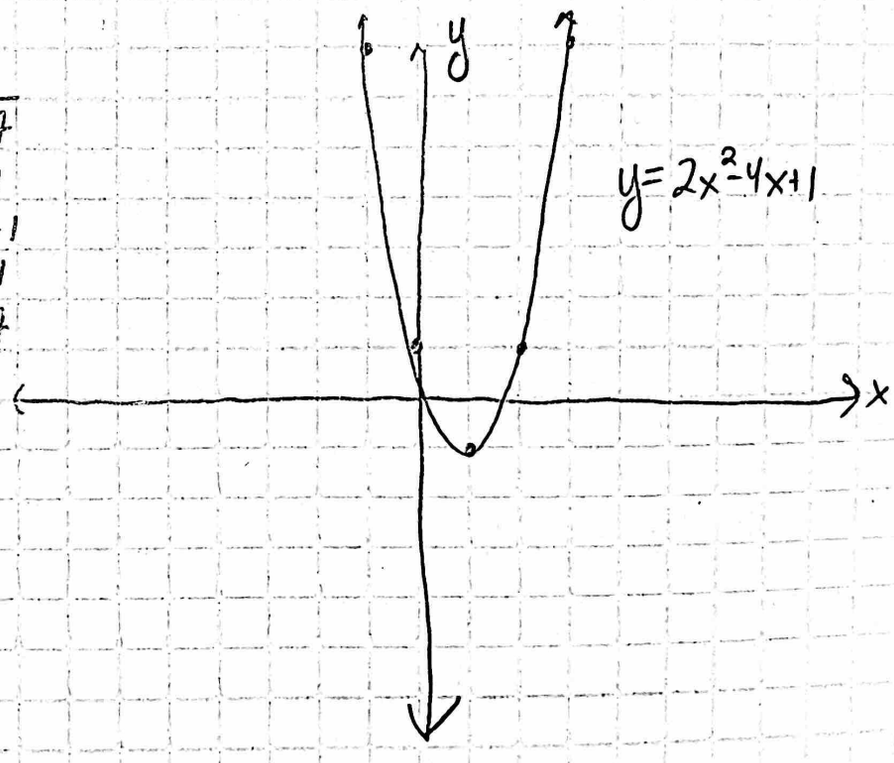
D: $(-\infty, \infty)$

R: $[-1, \infty)$

y int: $(0, 1)$

x int: $(1 \pm \sqrt{\frac{1}{2}}, 0)$

-1	7
0	1
1	-1
2	1
3	7



PC: Vertex Form Practice Key

③ $y = 3x^2 + 6x + 10$

VF: $y = 3(x+1)^2 + 7$

V: $(-1, 7)$

a. of sym: $x = -1$

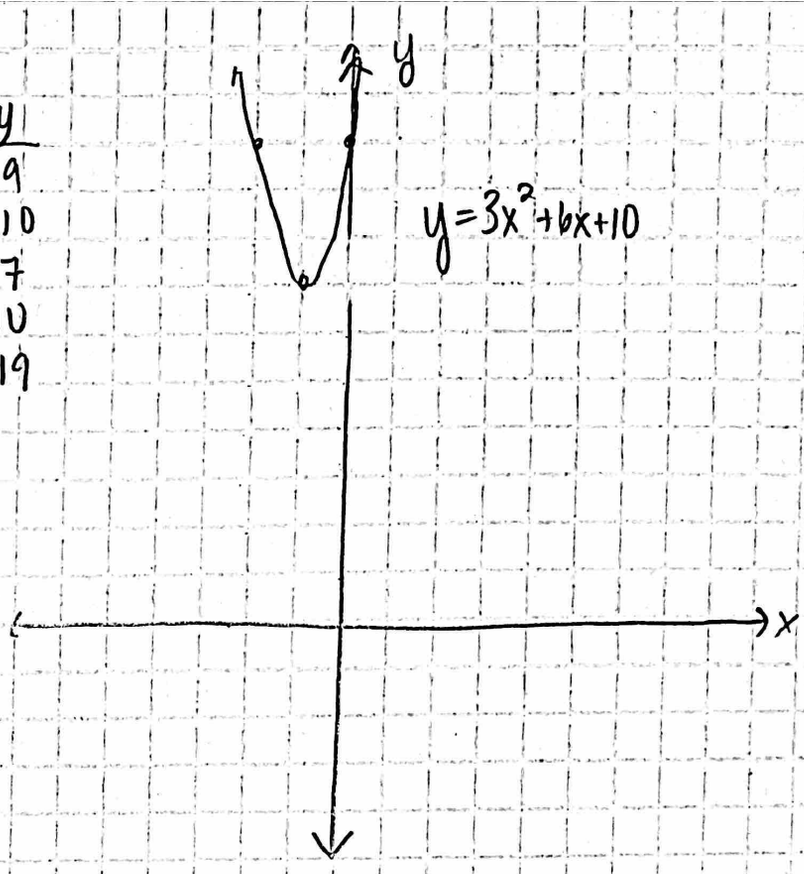
D: $(-\infty, \infty)$

R: $[7, \infty)$

y-int: $(0, 10)$

x-int: none

x	y
-3	19
-2	10
-1	7
0	10
1	19



④ $y = -2x^2 + 12x - 14$

VF: $y = -2(x-3)^2 + 4$

V: $(3, 4)$

a of sym: $x = 3$

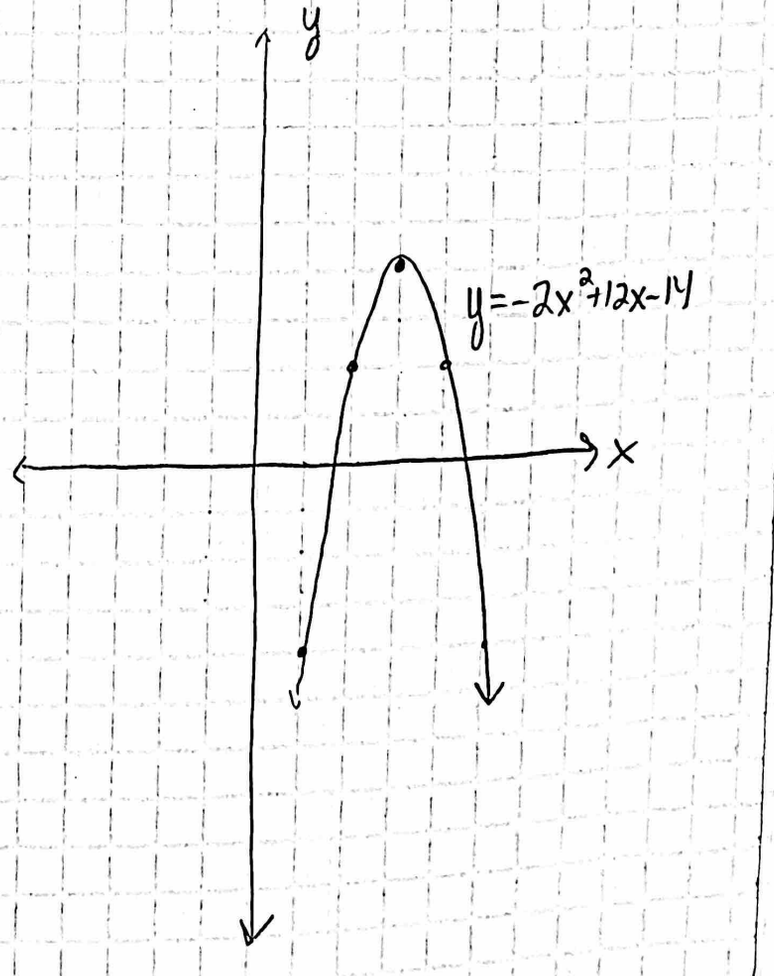
D: $(-\infty, \infty)$

R: $(-\infty, 4]$

y-int $(0, -14)$

x-int $(3 \pm \sqrt{2}, 0)$

x	y
1	4
2	2
3	4
4	2
5	-4



⑤ $y = -x^2 - 2x - 3$

VF: $y = -(x+1)^2 - 2$

V: $(-1, -2)$

a of sym: $x = -1$

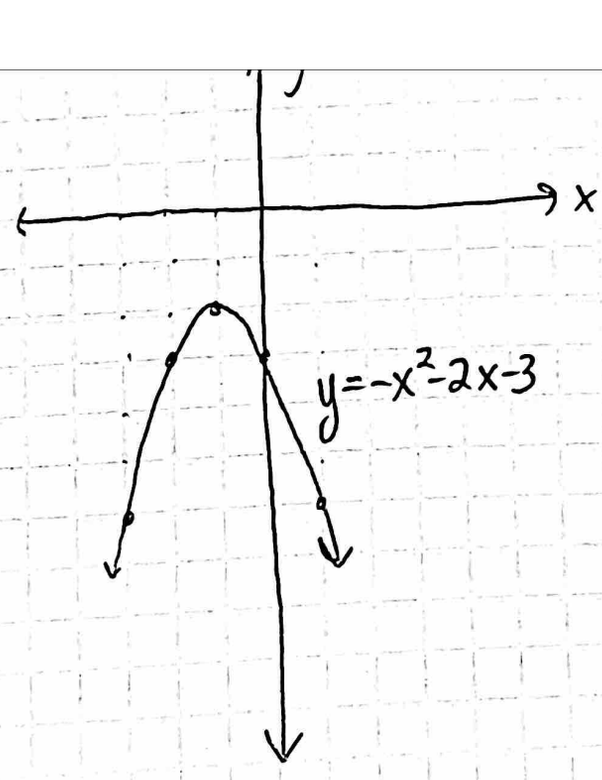
D: $(-\infty, \infty)$

R: $(-\infty, -2]$

y-int: $(0, -3)$

x-int: none

x	y
-3	-6
-2	-3
-1	-2
0	-3
1	-6



⑥ $y = 3x^2 + 6x - 3$

VF: $y = 3(x+1)^2 - 6$

V: $(-1, -6)$

a of sym: $x = -1$

D: $(-\infty, \infty)$

R: $[-6, \infty)$

y-int: $(0, -3)$

x-int: $(-1 \pm \sqrt{2}, 0)$

x	y
-3	6
-2	-3
-1	-6
0	-3
1	6