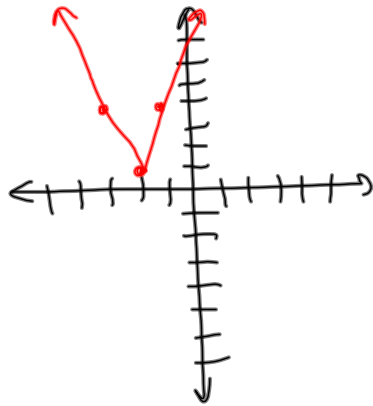


Absolute Value

$$y = 3|x+2| + 1$$

- ① Find (h, k) . Graph.
- ② Find $a \rightarrow$ m of rt side
 $-a \rightarrow$ m of left side

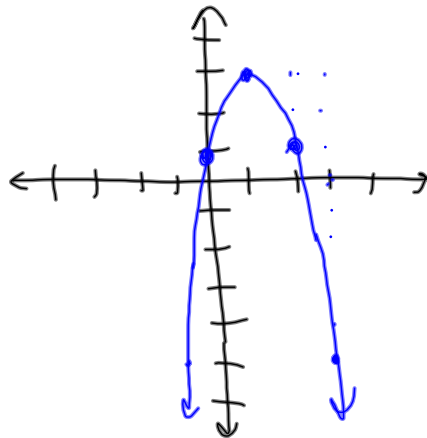


- ① $(-2, 1)$
- ② $a \rightarrow$ "m" = 3

Parabola / Quadratic

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

Method 1

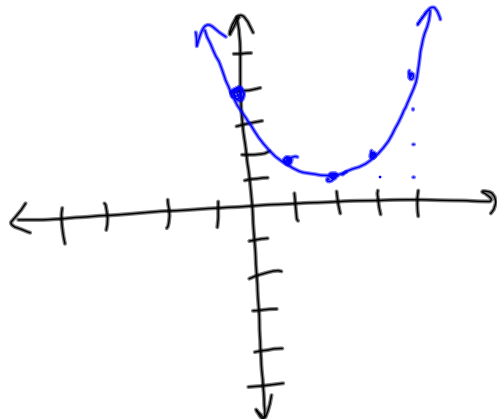


- ① (h, k)
 $(1, 3)$
- ② $a = -2$
from vertex

over	up/down
1	$a = -2$
2	$4a = -8$

$$y = \frac{3}{4}(x-2)^2 + 1$$

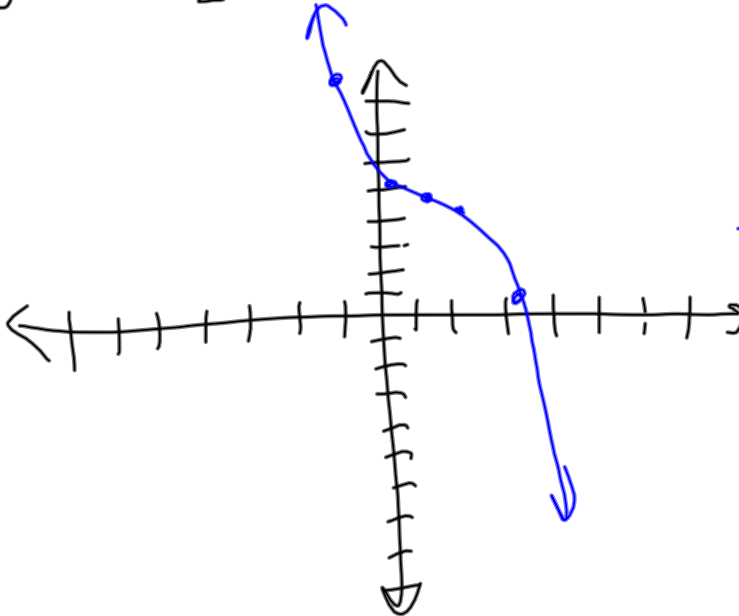
- ① v: $(2, 1)$
- ② $a = \frac{3}{4}$



- | | |
|------|------------------------|
| over | up/down |
| 1 | $a = \frac{3}{4}$ |
| 2 | $4a = \frac{3}{1} = 3$ |

$$y = -\frac{1}{2}(x-1)^3 + 4$$

* Method 4

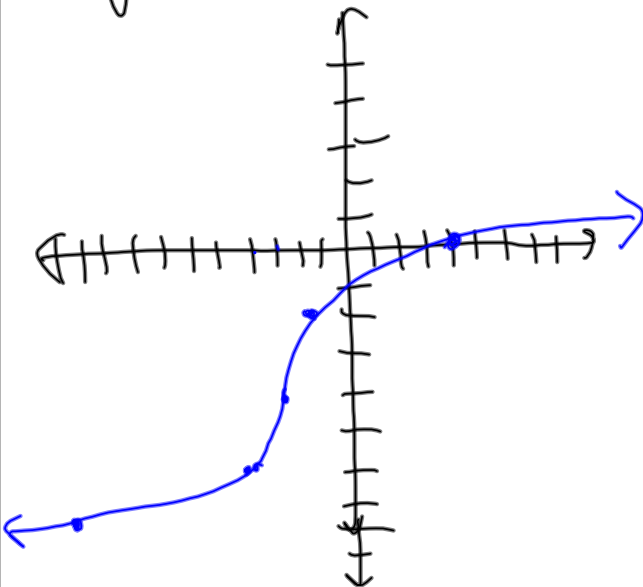


$$y = x^3$$

x	y	$a = -\frac{1}{2}$	(h, k)
-2+1	-8(- $\frac{1}{2}$)	4+4	(-1, 8)
-1+1	-1(- $\frac{1}{2}$)	$\frac{1}{2}$ +4	(0, 4 $\frac{1}{2}$)
0+1	0(- $\frac{1}{2}$)	0+4	(1, 4)
1+1	1(- $\frac{1}{2}$)	$-\frac{1}{2}$ +4	(2, 3 $\frac{1}{2}$)
2+1	8(- $\frac{1}{2}$)	-4+4	(3, 0)

$$y = 2\sqrt[3]{x+3} - 4$$

$$y = \sqrt[3]{x}$$

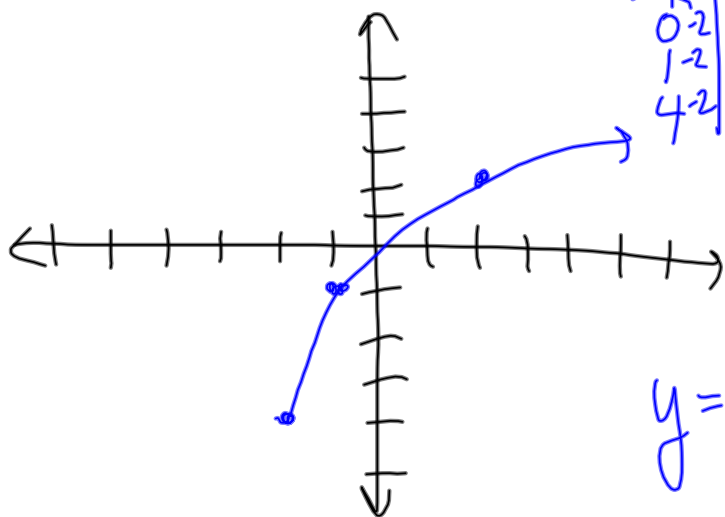


x	y	a	(h, k)
-8-3	-2-2	-4-4	(-11, -8)
-1-3	-1-2	-2-4	(-4, -6)
0-3	0-2	0-4	(-3, -4)
1-3	1-2	2-4	(-2, -2)
8-3	2-2	4-4	(5, 0)

$$y = 3\sqrt{x+2} - 4$$

$$y = \sqrt{x}$$

x	y	a=3	(-2, -4)
0-2	0-3	0-4	(-2, -4)*
1-2	1-3	3-4	(-1, -1)
4-2	2-3	6-4	(2, 2)



$$y = \sqrt{4x-20}$$

$$y = \sqrt{4(x-5)}$$