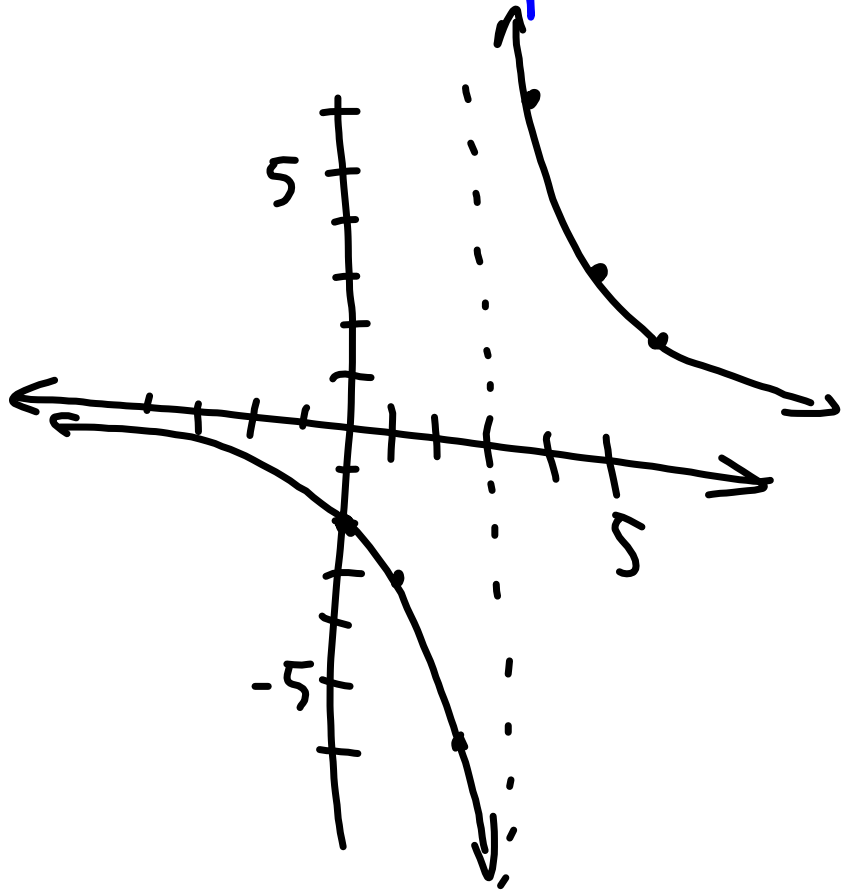


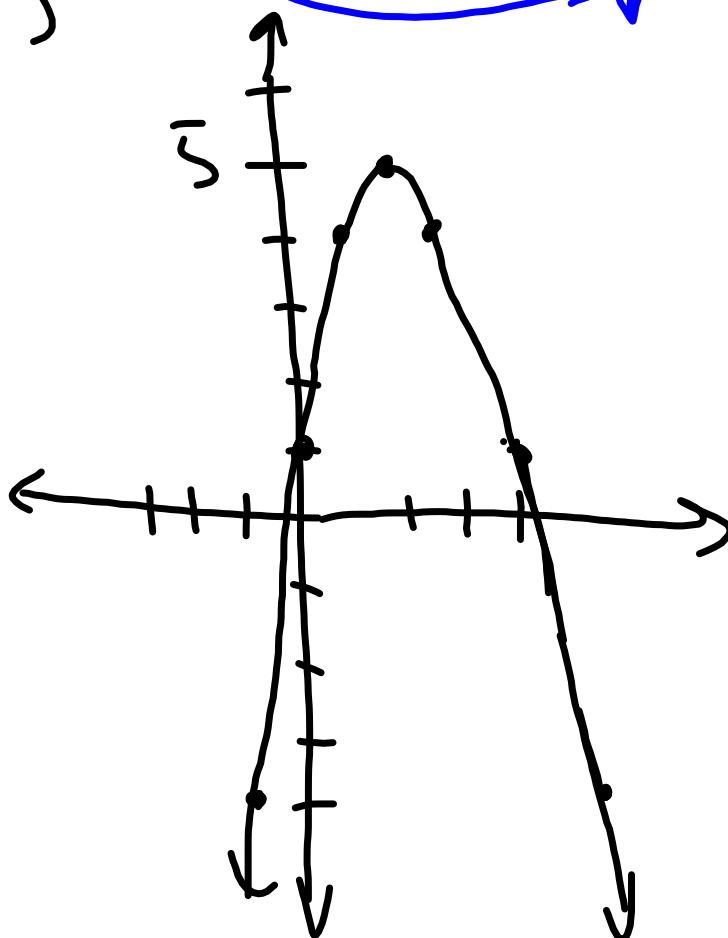
① Graph $f(x) = \frac{6}{x-3}$ x=3 is important!

x	y
0	-2
1	-3
2	-6
4	DNF
5	DNF
6	DNF



② Graph $g(x) = -x^2 + 4x + 1$

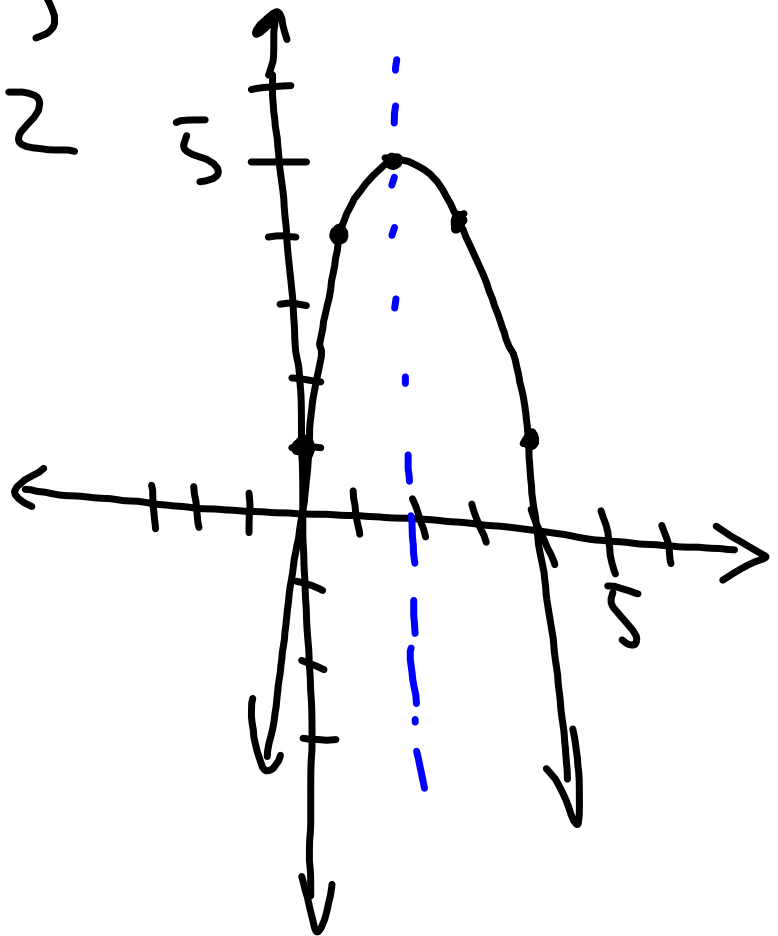
x	y
0	1
1	4
2	5
3	4
5	1



② Graph $g(x) = -x^2 + 4x + 1$

$$x = \frac{-b}{2a} = \frac{-4}{2(-1)} = 2$$

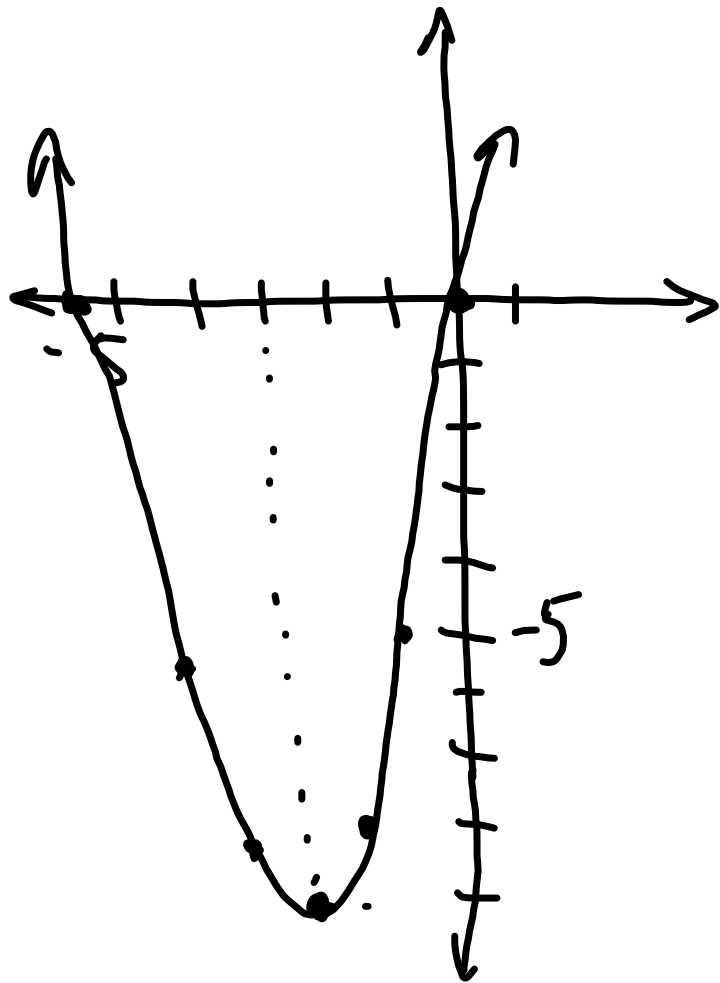
x	y
-1	-4
0	1
1	4
2	5
3	4
4	-3



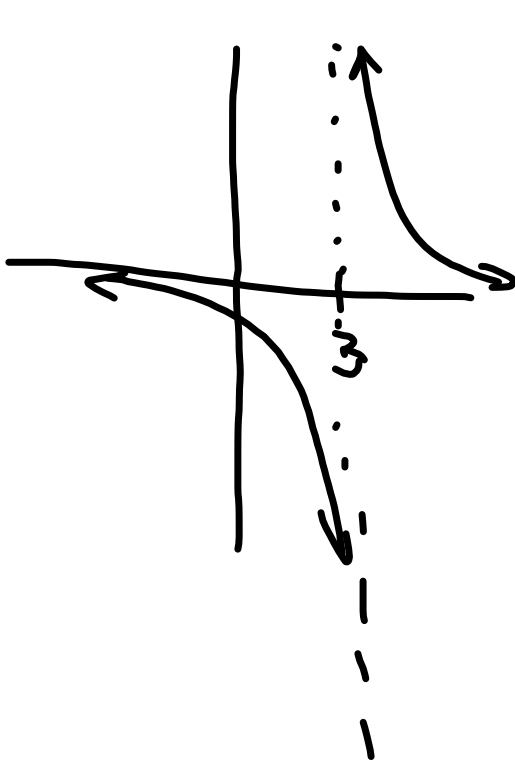
Graph $y = x^2 + 6x$

$$x = \frac{-b}{2(a)} = -3$$

x	y
-4	8
-3	9
-2	8
-1	5
0	0

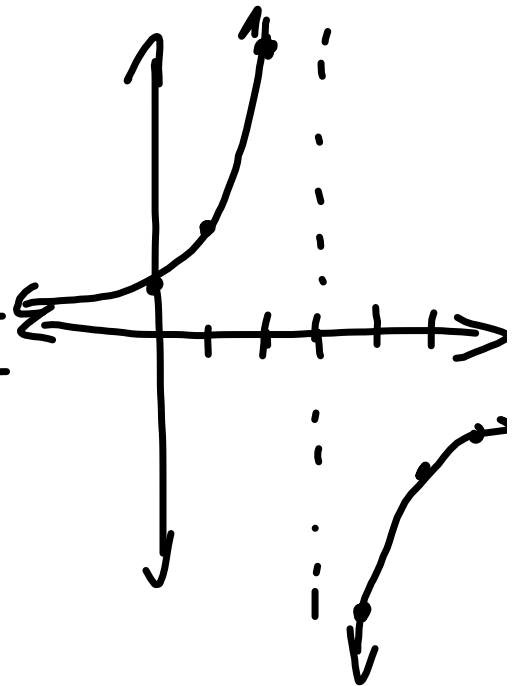


$$f(x) = \frac{6}{x-3}$$



$$h(x) = \frac{6}{3-x}$$

x	h(x)
0	2
1	3
2	6
3	DNE
4	6
5	3
6	2



$$3^2 = 3 \cdot 3 = 9$$

$$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$$

$$3^{-2} = \frac{1}{3^2} = \frac{1}{9}$$

$$3^0 = 1$$

$$8^{\frac{1}{3}} = \sqrt[3]{8} = 2 \quad a^{\frac{1}{n}} = \sqrt[n]{a}$$

$$49^{\frac{1}{2}} = \sqrt{49} = 7$$

$$(-49)^{\frac{1}{2}} = \sqrt{-49} \quad \text{DNE}$$

$$-49^{\frac{1}{2}} = -(49^{\frac{1}{2}}) = -\sqrt{49} = -7$$

$$(-8)^{\frac{1}{3}} = \sqrt[3]{-8} = -2$$

Given $a^{\frac{m}{n}} = \sqrt[n]{a^m} = (\sqrt[n]{a})^m$

$$27^{\frac{2}{3}} = \sqrt[3]{27^2} = \left(\sqrt[3]{27} \right)^2$$
$$= \sqrt[3]{9}$$

$$4^{\frac{5}{2}} = \left(\sqrt{4} \right)^5 = 2^5 = 32$$

1	128
2	256
4	512
8	1024
16	2048
32	
64	