S a 15 FEB 2017

A. D a
a . b^2-4ac

B. I a a ,

$24x^2-14x-6=0$

$24x^2-14x=6$

$-6\ \ -6$

$x=\dfrac{-b\pm\sqrt{b^2-4ac}}{2a}$

A) b^2-4ac $a=24$ $b=-14$ $c=-6$

$(-14)^2-4(24)(-6)$

772

2 Real Solutions

B) $x=\dfrac{-(-14)\pm\sqrt{772}}{2(24)}$

$x=\dfrac{14+\sqrt{772}}{48}$ or $\dfrac{14-\sqrt{772}}{48}$

$x=.87$ or $-.29$

A. D a
a . b^2-4ac
B. I a a ,
a .

1) $x^2-8x-4=0$
2) $x^2+3x+6=0$
3) $x^2-2x=35$
4) $3x^2+2x+6=0$
5) $6x^2-4x-9=0$

2) $x^2+3x+6=0$ $a=1$ $b=3$ $c=6$

A) b^2-4ac

$(3)^2-4(1)(6)=-15$

NO Real Solutions

3) $x^2-2x=35$ $a=1$ $b=-2$ $c=-35$

$-35\ \ -35$

$X^2-2X-35=0$

A) $b^2-4ac=(-2)^2-4(1)(-35)=144$

2 Real Solutions

B) $X=\dfrac{-(-2)\pm\sqrt{144}}{2(1)}=\dfrac{2\pm\sqrt{144}}{2}$

$X=\dfrac{2+\sqrt{144}}{2}$ or $\dfrac{2-\sqrt{144}}{2}$

$X=7$ or -5

$a=3 \quad b=2 \quad c=6$

4) $3x^2+2x+6=0$

A) b^2-4ac

$(2)^2-4(3)(6)=-68$

No Real Solutions

$a=6 \quad b=-4 \quad c=-9$

5) $6x^2-4x-9=0$

A) b^2-4ac

$(-4)^2-4(6)(-9)=232$

2 real solutions

B) $x=\frac{-(-4)\pm\sqrt{232}}{2(6)}$

$x=\frac{4+\sqrt{232}}{12}$ & $\frac{4-\sqrt{232}}{12}$

$x=1.60$ & $-.94$

Parabola

Graphing Quadratic Equations

Graph each equation on the same graph.

1) $y=x^2$ axis of symmetry $x=0$ vertex $(0,0)$

$y=3x^2$ axis of symmetry $x=0$ vertex $(0,0)$

$y=-3x^2$ axis of symmetry $x=0$ vertex $(0,0)$

minimum

$y=(\ )^2$

x	y
-2	4
-1	1
0	0
1	1
2	4

$3(\ )^2$

x	y
-2	12
-1	3
0	0
1	3
2	12

x	y
-2	-12
-1	-3
0	0
1	-3
2	-12