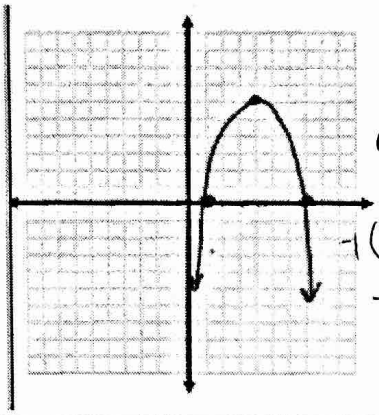
Intermediate Algebra B
L.T. 5.3 Discriminant

Name _____

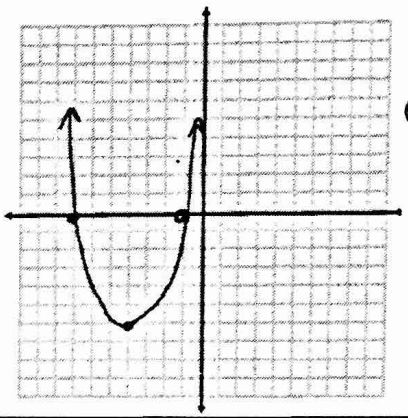
Round Table

Write an equation using the roots that could model the graph below.



$x=1$
$x=7$
$(x-1)(x-7)$
$x^2-7x-x+7$
$-1(x^2-8x+7)$
$-1x^2+8x-7=y$

Write an equation using the roots that could model the graph below.



$x=-1$
$x=7$
$(x+1)(x-7)$
$x^2+8x+7=y$

Find the discriminant for the equation below. Then, state how many and what type of solutions the equation will have.

$$y = 5x^2 + 20x + 3$$

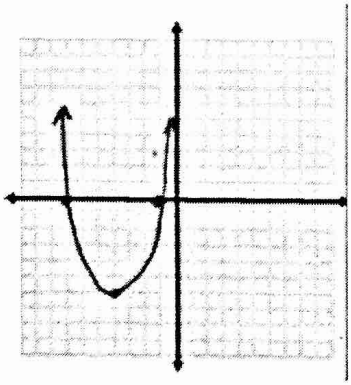
$20^2-4(5)(3)$
$= 340$
2 Real solutions

Find the discriminant for the equation below. Then, state how many and what type of solutions the equation will have.

$$y = -2x^2 + 6x - 8$$

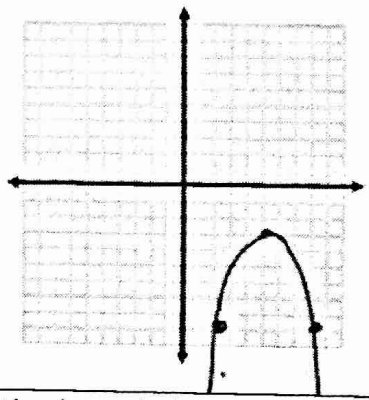
$(6)^2-4(-2)(-8)$
$= -28$
2 imag solutions, 0 Real

Will the graph pictured have a positive, negative, or zero discriminant? Explain your answer.



positive

Will the graph pictured have a positive, negative, or zero discriminant? Explain your answer.



negative

An equation has one real solution. Will the discriminant of the equation be positive, negative, or zero? Explain your answer.

0

An equation has solutions at 3 and 7. Will the discriminant of the equation be positive, negative, or zero? Explain your answer.

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