Name: _____   Date: _____   Period: _____
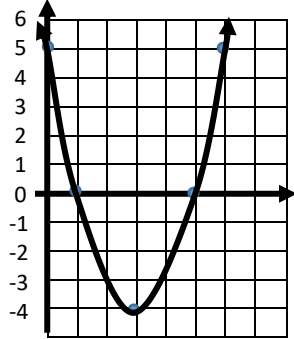
Six different quadratic functions are shown below. Your job is to pick which of the 6 quadratic functions matches what the question is asking. <u>Note:</u> NOT all six may be used and you may have repeat choices.

Choice A	**Choice B**	**Choice C**
$y = (x - 2)(x + 4)$		<table><tr><th>x</th><th>y</th></tr><tr><td>-2</td><td>3</td></tr><tr><td>-1</td><td>0</td></tr><tr><td>0</td><td>-1</td></tr><tr><td>1</td><td>0</td></tr><tr><td>2</td><td>3</td></tr></table>
Choice D	**Choice E**	**Choice F**
$y = (x + 1)^2 - 4$	$y = x^2 + 8x + 12$	$y = -x^2 + 2x - 1$

1. Which of the six quadratic functions has the highest vertex (highest y-value)? Show your work.
    How will you justify your answer?

Choice A	**Choice B**	**Choice C**	**Choice D**	**Choice E**	**Choice F**

2. Which of the six quadratic functions has x-intercepts who are closest together on the x-axis? Show your work.
    How will you justify your answer?

Choice A	**Choice B**	**Choice C**	**Choice D**	**Choice E**	**Choice F**

3. Which of the six quadratic functions has the lowest y-intercept? Show your work.
    How will you justify your answer?

Choice A	**Choice B**	**Choice C**	**Choice D**	**Choice E**	**Choice F**