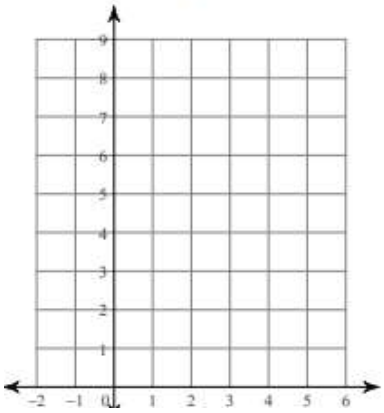
Parabola Graph Station

It's just like absolute value graphs, but U-shaped instead of V-shaped. Use your notes from the last station to do these six problems.

1) $f(x) = (x-2)^2 + 4$



Where is the vertex? _____

Which direction does it open? ∪ ∩

Over one, up/down… _____

Now sketch the graph.

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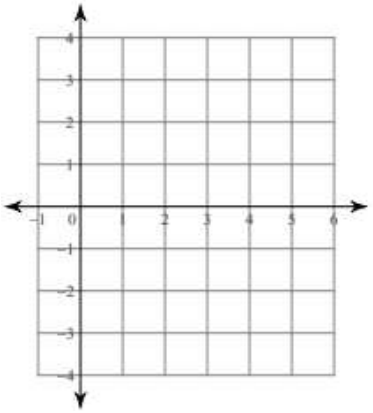
2) $y = -(x-4)^2 + 2$



Where is the vertex? _____

Which direction does it open? ∪ ∩

Over one, up/down… _____

Now sketch the graph.

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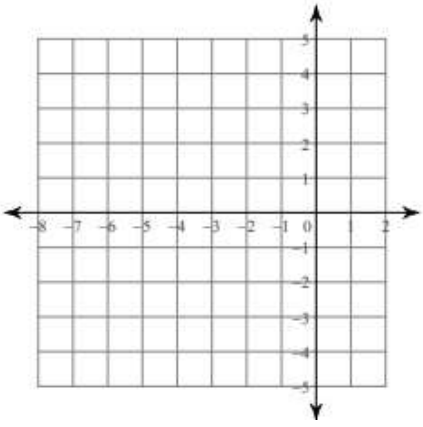
3) $f(x) = 2(x+3)^2 - 4$



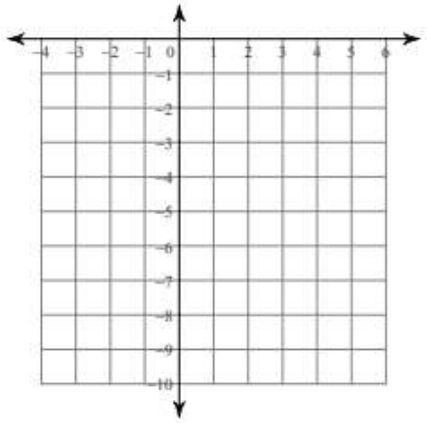
Where is the vertex? _____

Which direction does it open? ∪ ∩

Over one, up/down… _____

Now sketch the graph.

4) $y = -2(x-1)^2 - 1$



Where is the vertex? _____

Which direction does it open? ∪ ∩

Over one, up/down… _____

Now sketch the graph.

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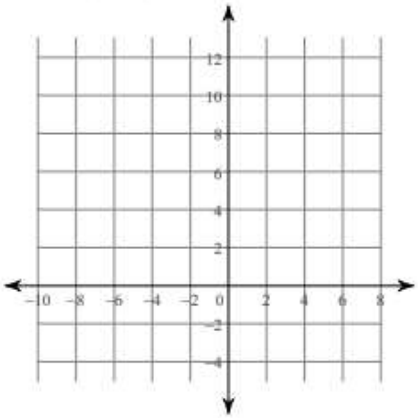
5) $y = 4(x+1)^2 - 4$



Where is the vertex? _____

Which direction does it open? ∪ ∩

Over one, up/down… _____

Now sketch the graph. (Check the numbering on the graph!)

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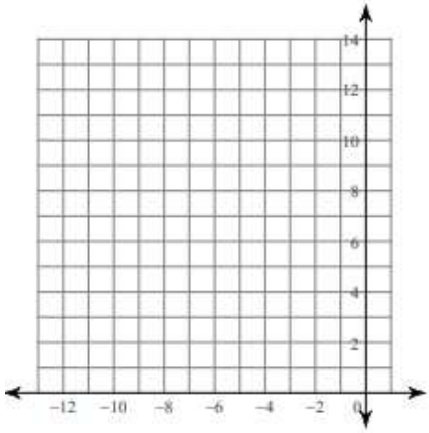
6) $f(x) = 3(x+2)^2 + 1$



Where is the vertex? _____

Which direction does it open? ∪ ∩

Over one, up/down… _____

Now sketch the graph.