SATPREP Name_____

Assignment: Completing square

Date_____

Solve each equation by completing the square.

1) $x^2 + 12x - 13 = 0$

2) $x^2 + 6x - 91 = 0$

3) $b^2 + 20b - 59 = 0$

4) $k^2 - 16k - 64 = 0$

Sketch the general shape of each function.

5) $f(x) = x^2 - 6x + 11$

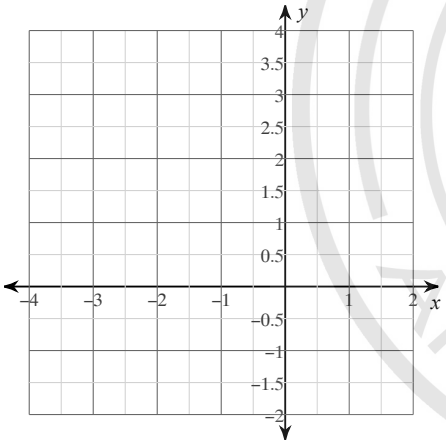
6) $f(x) = x^2 - 8x + 10$

7) $f(x) = 2x^2 - 12x + 18$

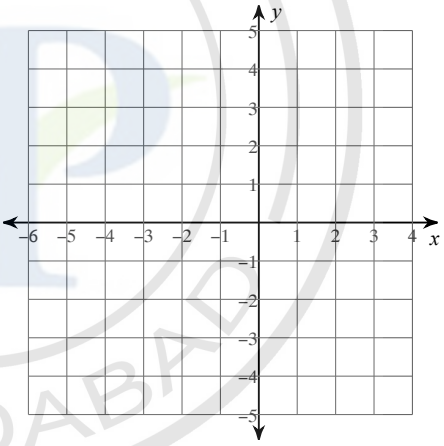
8) $f(x) = -x^2 + 8x - 11$

Sketch the graph of each function.

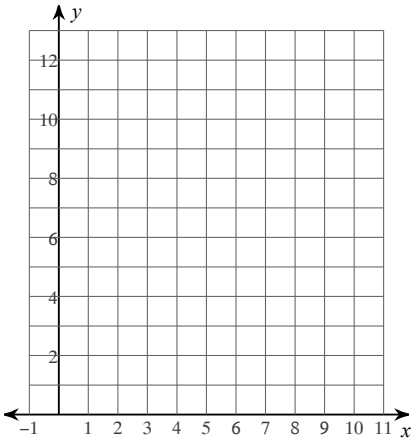
9) $y = x^2 + 2x$



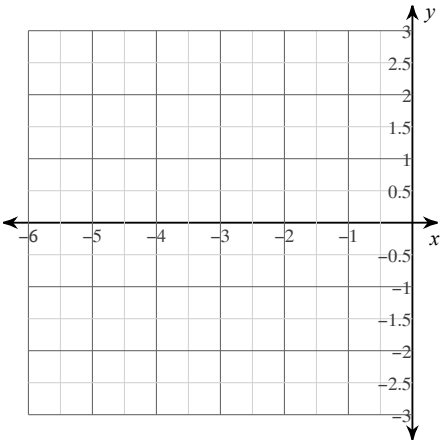
10) $y = 2x^2 - 8x + 4$



11) $y = 2x^2 - 12x + 22$



12) $y = x^2 + 4x + 2$



Answers to Assignment: Completing square

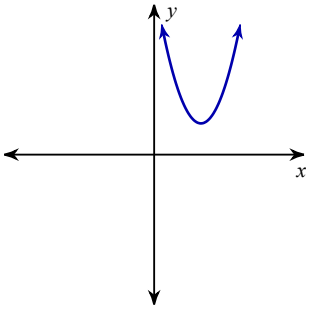
1) $\{1, -13\}$

2) $\{7, -13\}$

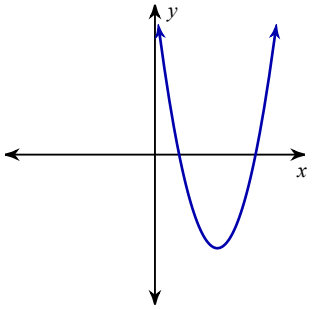
3) $\{-10 + \sqrt{159}, -10 - \sqrt{159}\}$

4) $\{8 + 8\sqrt{2}, 8 - 8\sqrt{2}\}$

5)



6)



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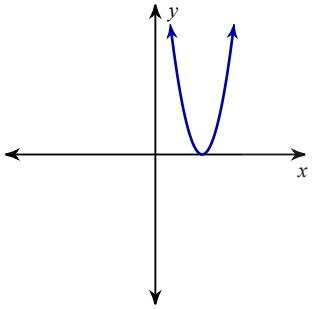

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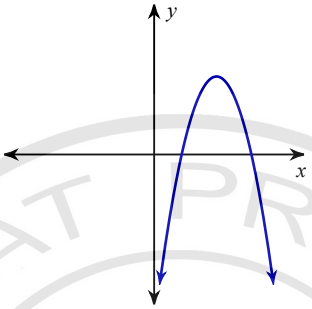

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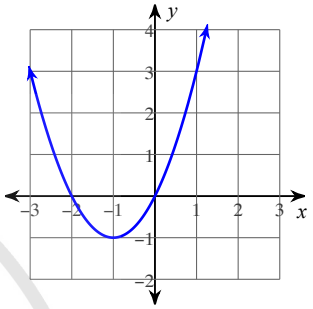

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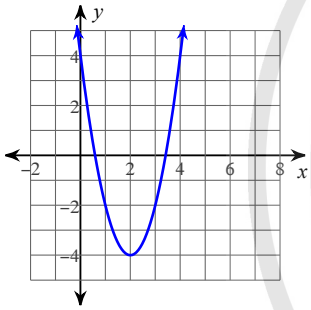

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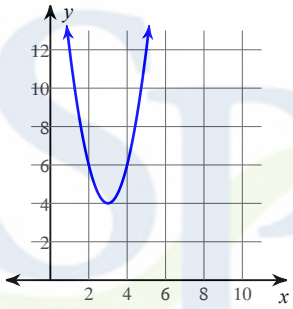

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