

Name _____

Block ____

Alg2: Quadratics

1. **Show your work.**
2. Clearly indicate (underline/box) your final answer.
3. You can use graphic calculator for graphing.
4. You do need to show your work! This is especially true when calculating algebraically x-intercepts, y-intercepts.
5. You are allowed 1 (=one) double sided sheet with formulas and examples.

1. Solve using MATH method $x^2 + 7x + 12 = 0$	2. Solve using complete the square $x^2 - 6x + 1 = 0$
3. Solve using quadratic formula $3x^2 - 25x + 42 = 0$	4. Solve using quadratic formula $4x^2 - 20x + 25 = 0$

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5. Solve

$$x^2 = -7x$$

6. Given the quadratic expression

$$35 - 12x + x^2$$

Write it in:

a. Standard form.

b. Factored form.

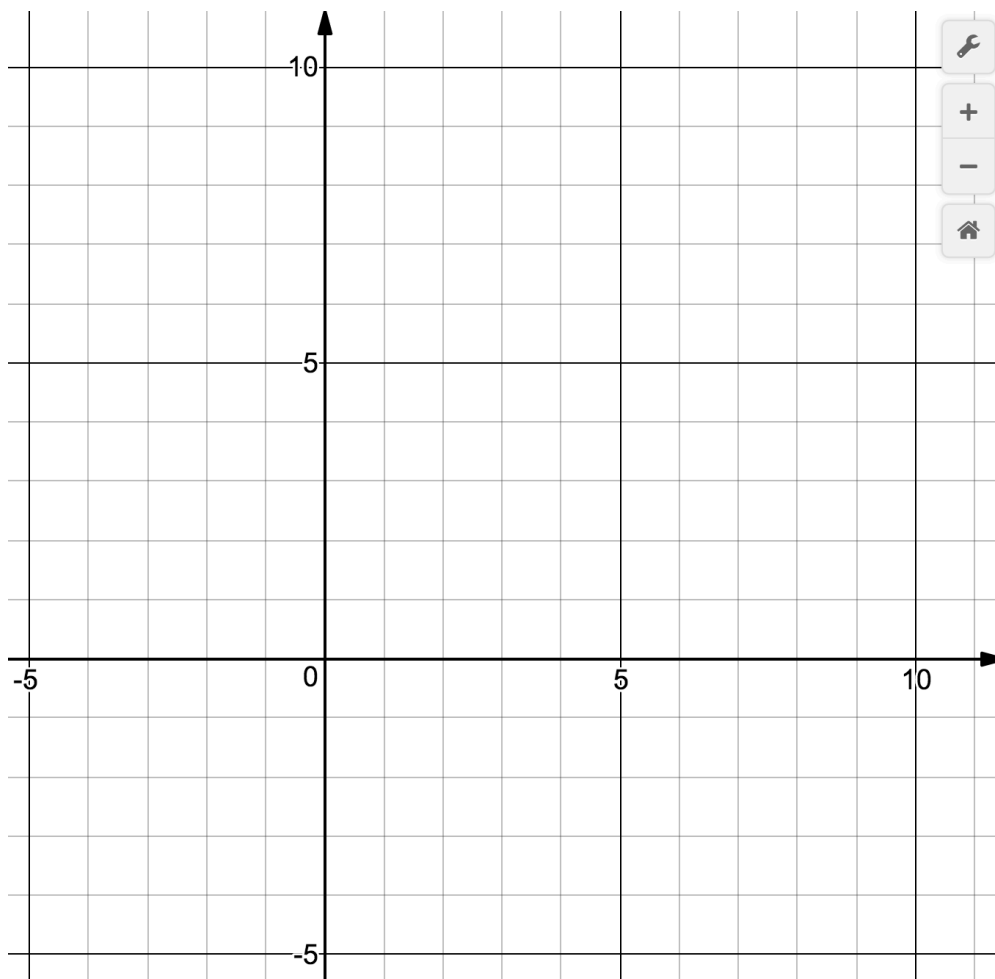
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7. Given the function

$$y = x^2 - 2x - 3$$

a. Graph the function in the space below (you can use your graphing calculator)



b. Mark clearly the vertex point on the graph, and indicate its value.

c. Mark clearly the x-intercepts, and indicate their values.

d. Mark clearly the y-intercept, and indicate its values.

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e. Calculate the y-intercept algebraically.

f. Calculate the x-intercepts algebraically.

8. An object is launched directly upward at 128 feet per second (ft/s) from a platform 50 feet high.

(a) When will the object attain its maximum height?

(b) What will be the object's maximum height?

=== End of test ===