

LESSON 5.1 Assignment

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e. Solve the inequality and determine the range of bracelet prices that will result in the booth making a profit. Explain your reasoning.

f. Determine the bracelet price that will yield the maximum profit. How much profit will be made at that price?

2. Emilio has been trying to regulate the pH level in his tropical fish aquarium for 5 hours. In order to make the water safe for his fish, Emilio must keep the pH level less than or equal to 9. The function $p(x) = -0.34x^3 + 2.652x^2 - 5.4638x + 11.1114$ represents the pH level in the tank x hours since Emilio began to regulate it.

a. Write an inequality that represents the pH level in the tank being in the safe range.

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b. Solve the inequality and determine the time intervals during which the pH level in the tank was safe for Emilio's fish.

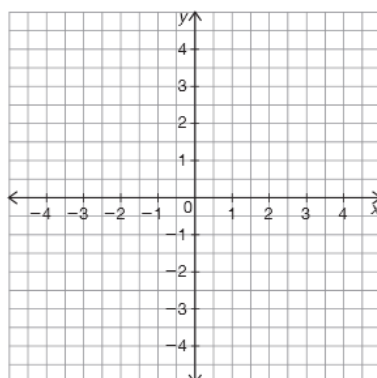
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Name _____ Date _____

3. Solve the inequality $2x^2 - 8x \leq 0$ by factoring and sketching. Use the given coordinate plane to sketch the general graph of the polynomial in order to determine which values satisfy the inequality. Label the axes.



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