Name: **Date:**

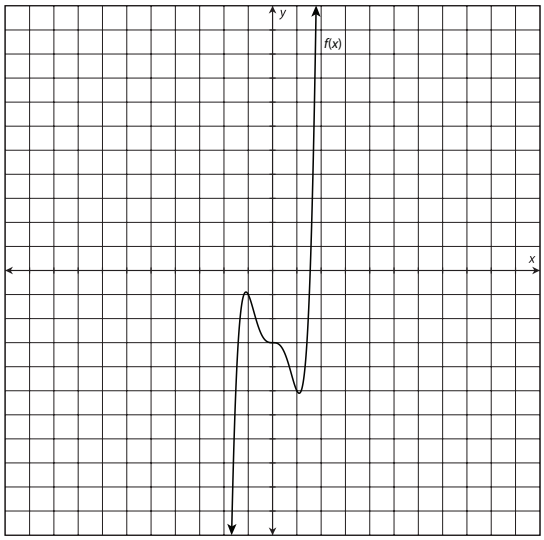
Practice: Describing End Behavior and Turns A

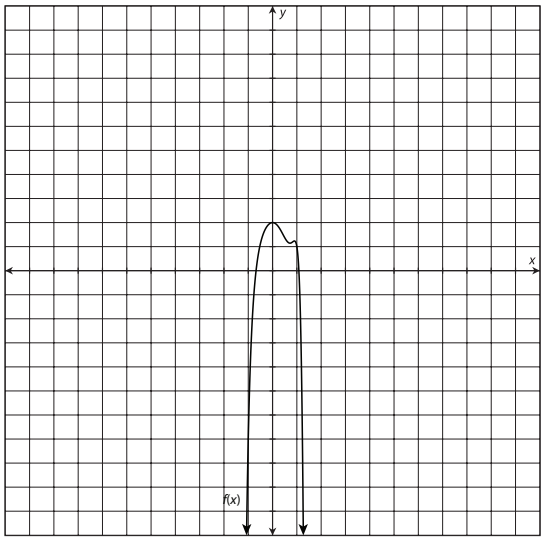
For problems 1 and 2, determine the end behavior, the maximum number of turning points, and the maximum number of real roots of each function.

1. $f(x) = -2x^4 + 6x^3 + 5x$

2. $g(x) = 4x^3 - 7x^2 + 8$

For problems 3 and 4, describe the end behavior of each graph. Determine whether the graph represents an even-degree or odd-degree function, and determine the number of real roots.

3. 

4. 

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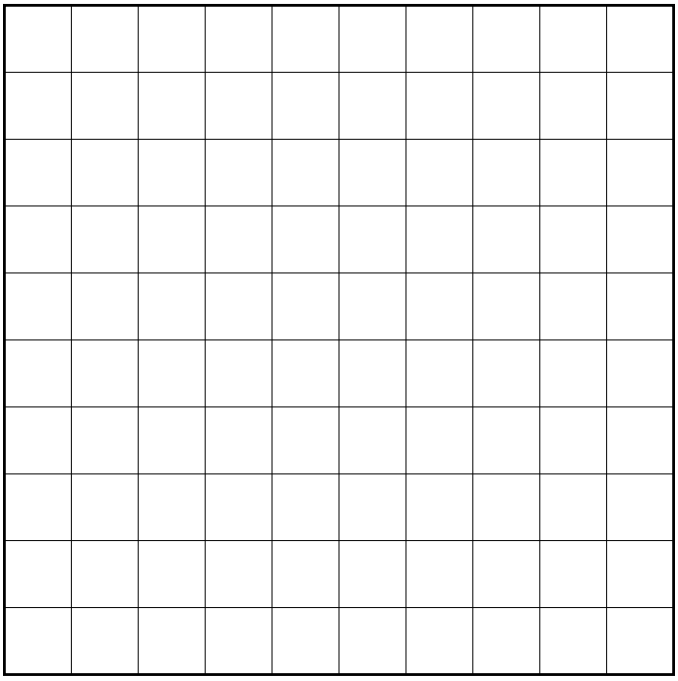
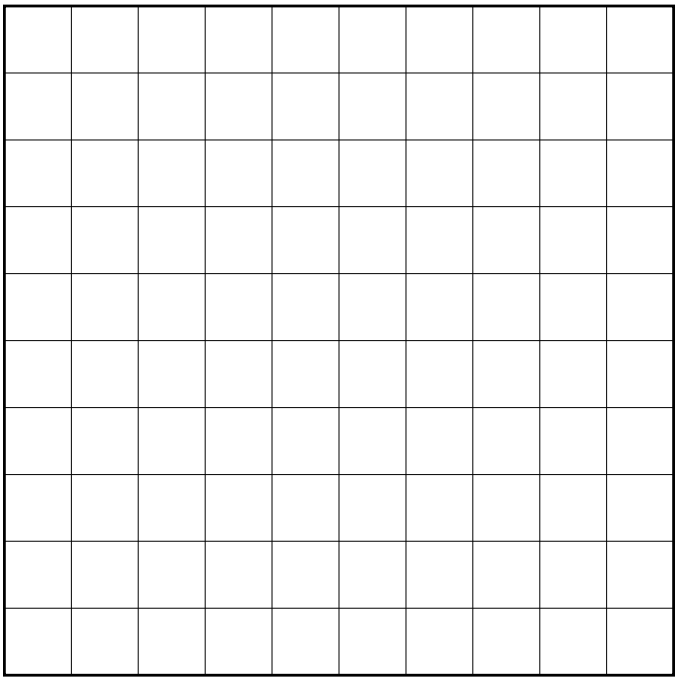
For problems 5 and 6, create a rough sketch of a possible graph of the function described.

5. a fifth-degree polynomial function with a negative leading coefficient



6. a fourth-degree polynomial function with a positive leading coefficient



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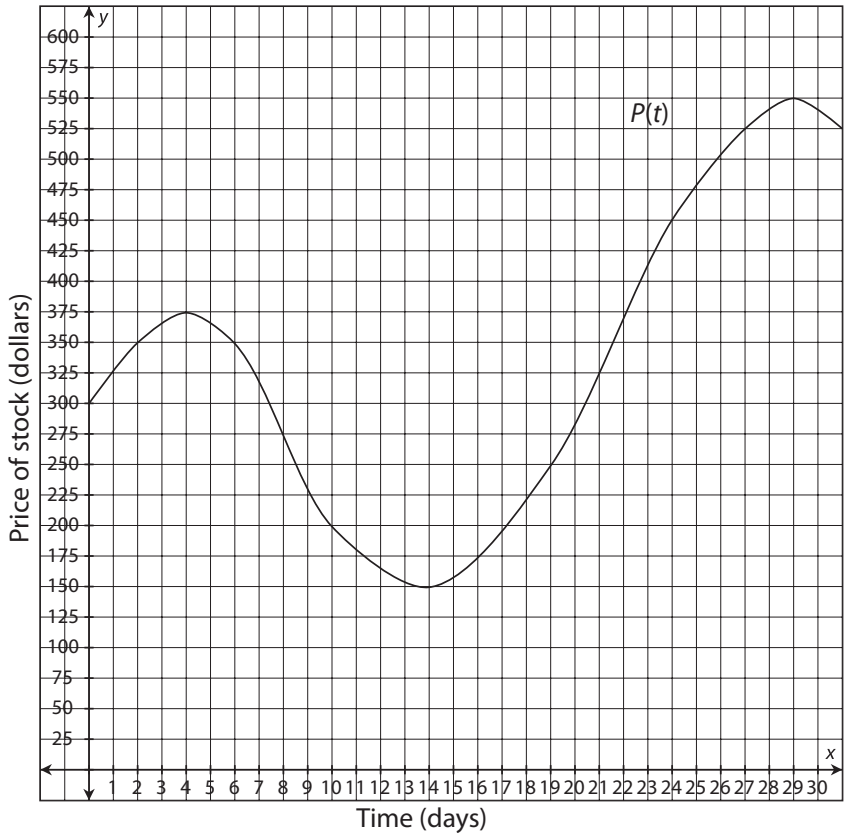
Name: **Date:**

The following graph models the price of a particular stock over a period of time. Use this graph to complete problems 7–10.



7. Estimate the turning points of the graph of this function.

8. What do the turning points mean in terms of the price of the stock?

9. Describe the end behavior of this graph.

10. If this graph were modeled by a polynomial function, what is the least degree the equation could have? Explain your answer.