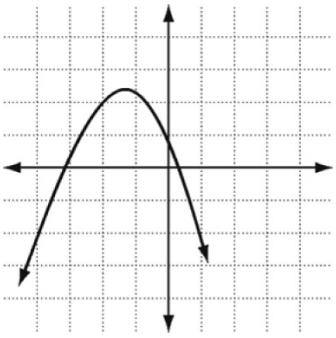
Name _____ Date _____ Class_____

LESSON 5-2

Graphing Polynomial Functions

Practice and Problem Solving

Identify whether the function graphed has an odd or even degree and a positive or negative leading coefficient.

1. 

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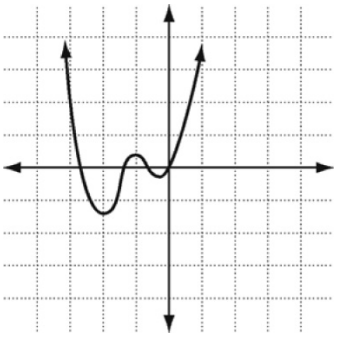
2. 

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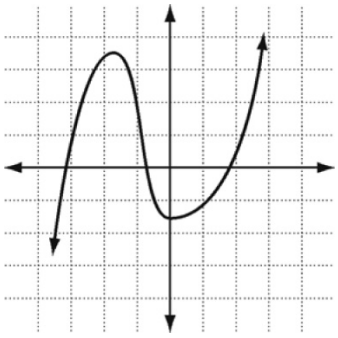
3. 

_____

Find the x-intercepts of the cubic functions.

4. $f(x) = x(x-4)^2$

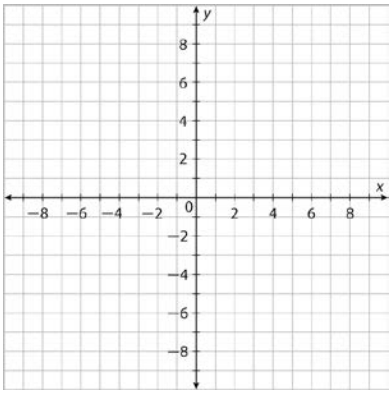
_____

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

_____

Graph the function. State the end behavior, *x*-intercepts, and intervals where the function is above or below the *x*-axis.

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



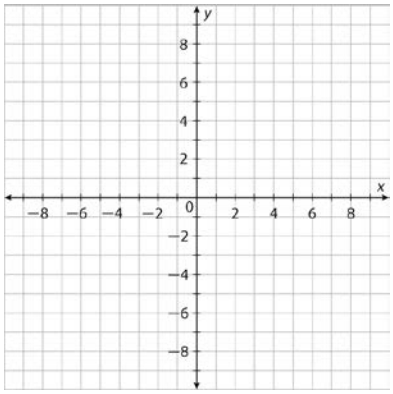
End behavior: _____

x-intercepts: _____

Above *x*-axis: _____

Below *x* axis: _____

7. $f(x) = (x+2)(x-3)(x-1)$



End behavior: _____

x-intercepts: _____

Above *x*-axis: _____

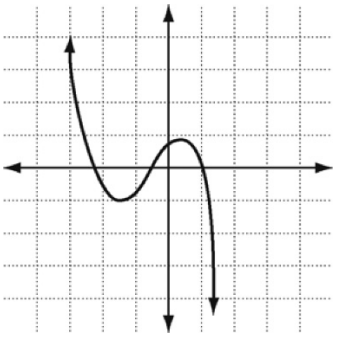
Below *x*-axis: _____

Name _____ Date _____ Class_____

Graphing Polynomial Functions

Practice and Problem Solving: C

Identify whether the function graphed has an odd or even degree and a positive or negative leading coefficient.

8. 

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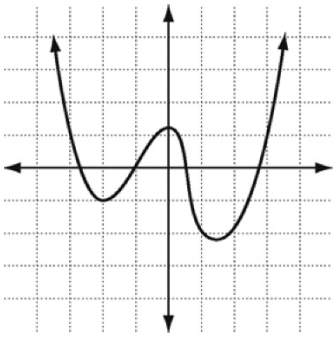
9. 

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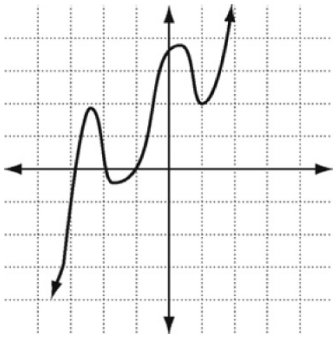
10. 

_____

Find the x-intercepts of the cubic functions.

11 $f(x) = -(x-1)^3(x+2)$

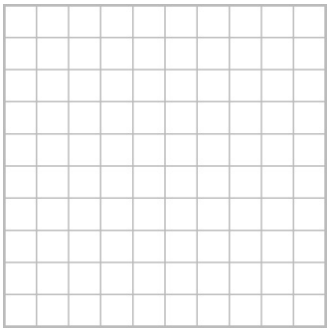
_____

12. $f(x) = x^5(x-3)(x+2)$

_____

Graph the function. State the end behavior, *x*-intercepts, and intervals where the function is above or below the *x*-axis.

13. $f(x) = (x-2)^2(x+2)(x+3)$



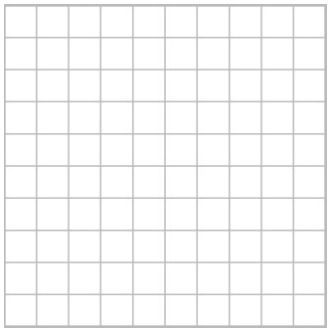
End behavior: _____

x-intercepts: _____

Above *x*-axis: _____

Below *x* axis: _____

14. $f(x) = -(x-1)^3(x+2)^2(x-3)$



End behavior: _____

x-intercepts: _____

Above *x*-axis: _____

Below *x*-axis: _____