

Name: _____

Date: _____

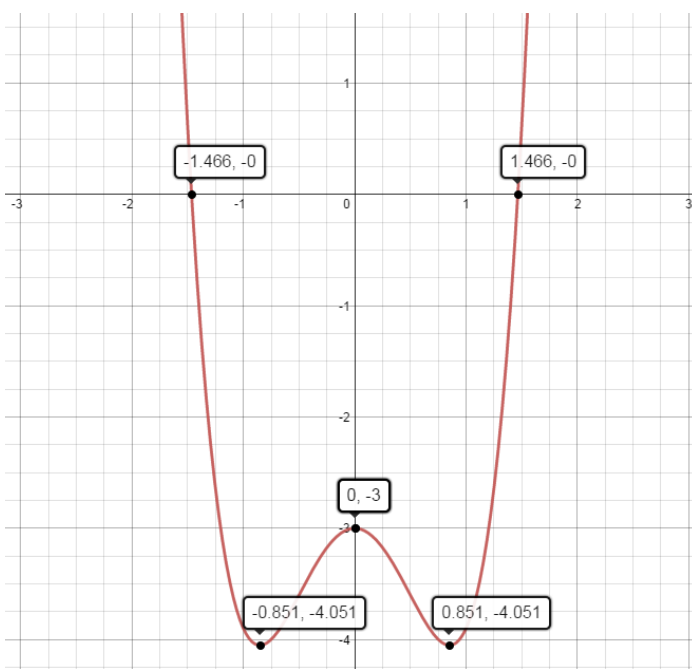
Identifying Features of Polynomials

Directions: Using the graphs below, highlight/circle the following features using the color it says:

- Interval(s) of Increase - Red
- Interval(s) of Decrease - Blue
- **Max** - Green
- **Zeros** - Yellow
- **Min** - Orange

Then answer the questions that follow.

1.



a) How many ~~roots~~^{zeros} does this polynomial have?

b) How many ~~vertices~~^{turning points} does this polynomial have?

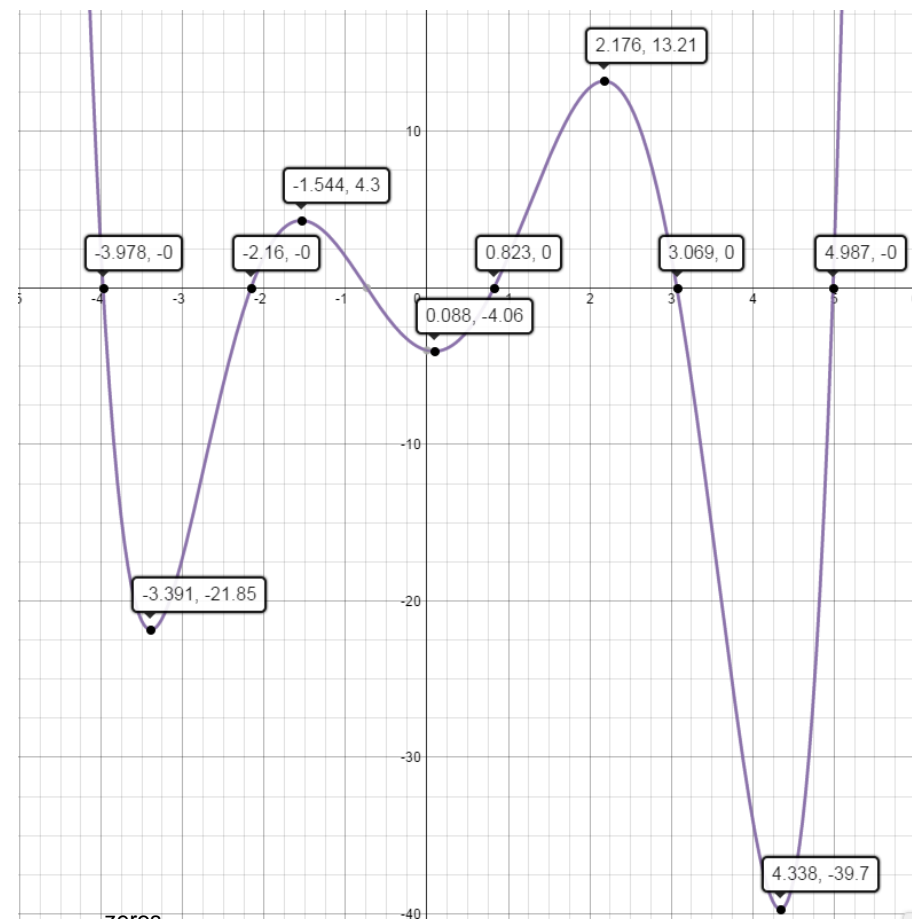
c) What is the degree of this polynomial?

d) What is the name of this polynomial?

e) As x decreases, $f(x) \rightarrow$ _____

As x increases, $f(x) \rightarrow$ _____

2.



a) How many ~~roots~~^{zeros} does this polynomial have?

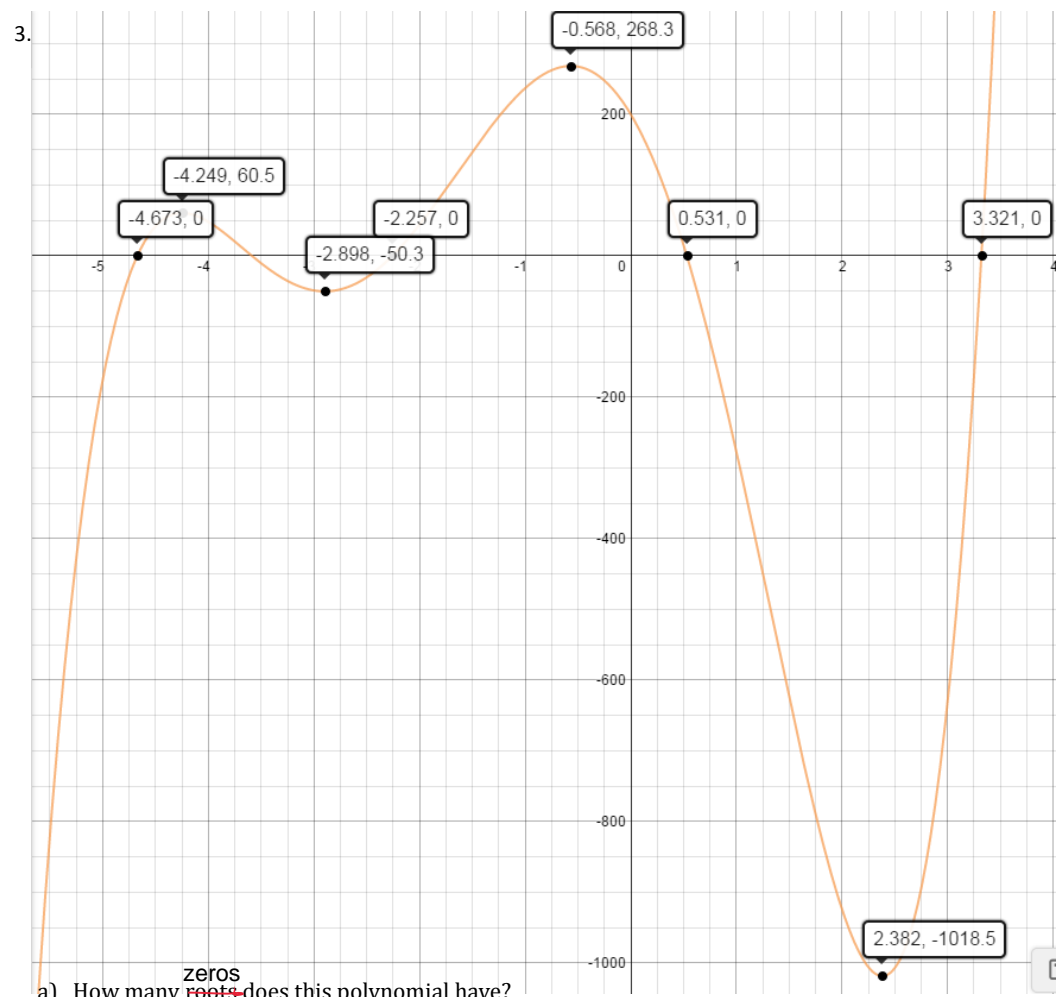
b) How many ~~vertices~~^{turning points} does this polynomial have?

c) What is the degree of this polynomial?

d) What is the name of this polynomial?

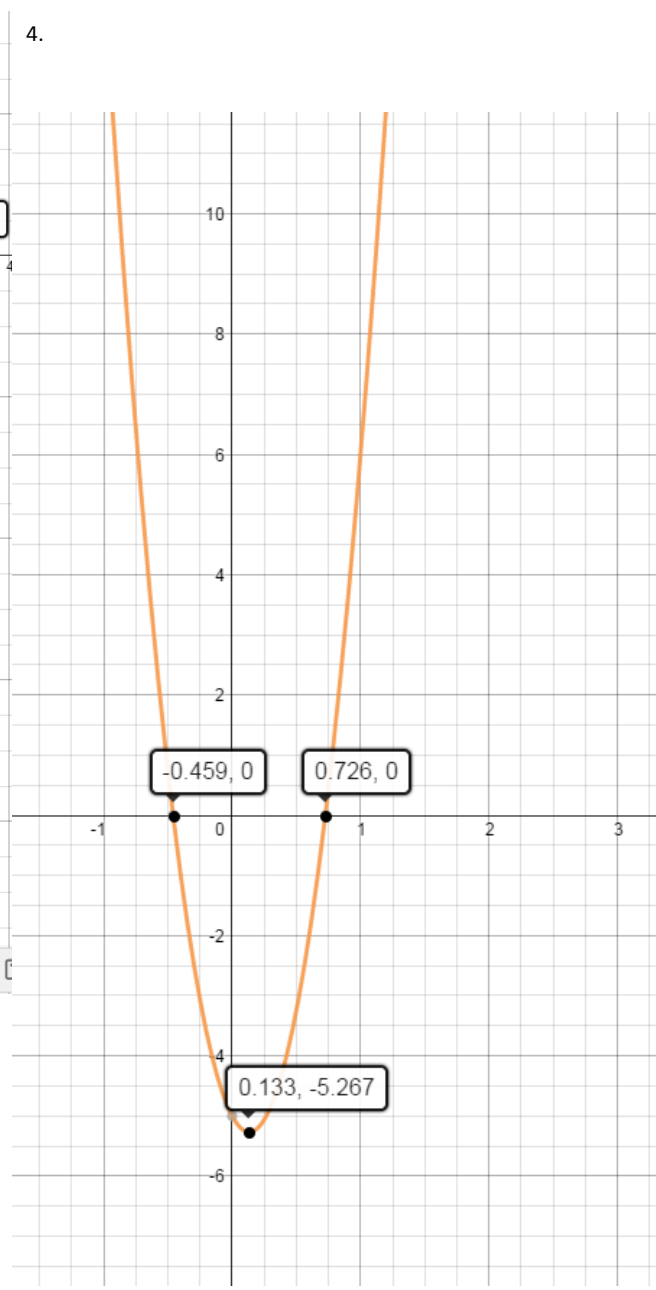
e) As x decreases, $f(x) \rightarrow$ _____

As x increases, $f(x) \rightarrow$ _____



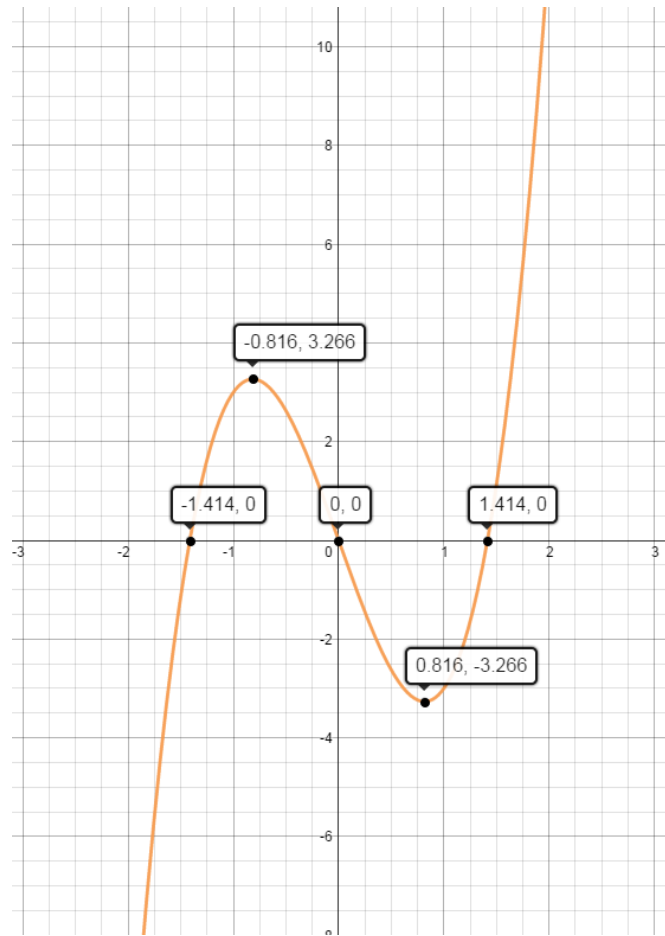
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- c) What is the degree of this polynomial?
- d) What is the name of this polynomial?

- e) As x decreases, $f(x) \rightarrow$ _____
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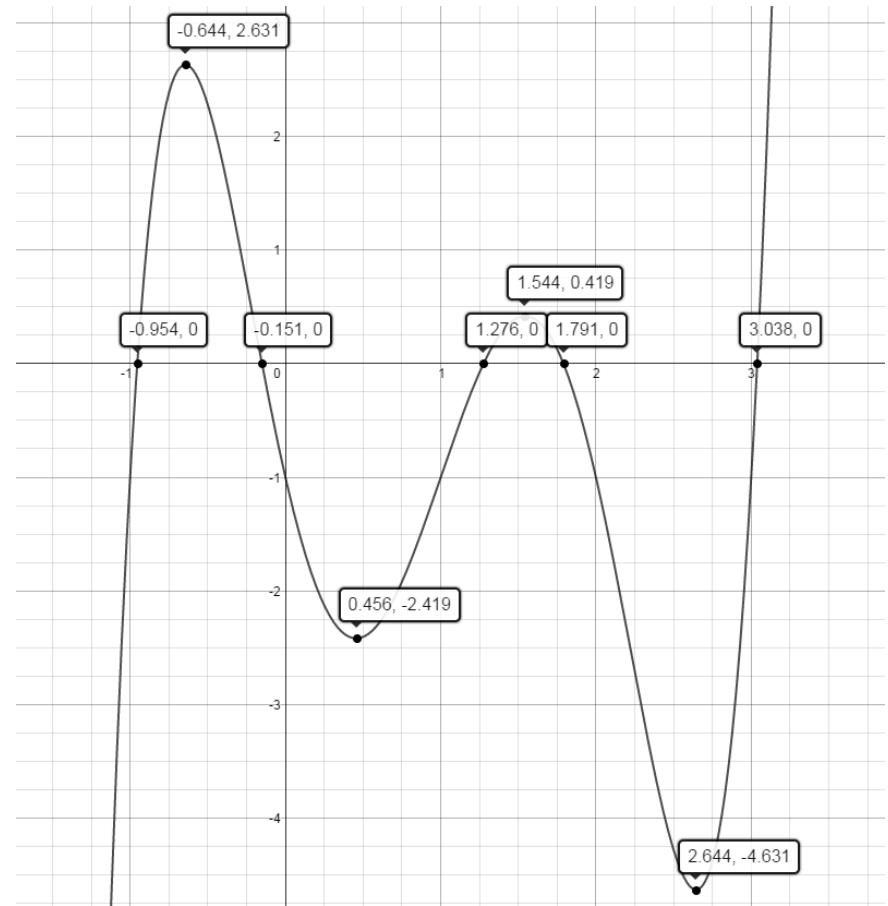
- a) How many ~~roots~~ ^{zeros} does this polynomial have?
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- c) What is the degree of this polynomial?
- d) What is the name of this polynomial?
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 As x increases, $f(x) \rightarrow$ _____

5.



- a) How many ~~roots~~^{zeros} does this polynomial have?
- b) How many ~~vertices~~^{turning points} does this polynomial have?
- c) What is the degree of this polynomial?
- d) What is the name of this polynomial?
- e) As x decreases, $f(x) \rightarrow$ _____
 As x increases, $f(x) \rightarrow$ _____

6.



- a) How many ~~roots~~^{zeros} does this polynomial have?
- b) How many ~~vertices~~^{turning points} does this polynomial have?
- c) What is the degree of this polynomial?
- d) What is the name of this polynomial?
- e) As x decreases, $f(x) \rightarrow$ _____
 As x increases, $f(x) \rightarrow$ _____