

NAME

QUARTER

GRADE &amp; SECTION

DATE

## Activity: Behavior of the Graph of a Polynomial Function

Match the graph to the polynomial function. Use what you know about its end behavior and number of turning points.

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

Degree	
Sign of Leading Coefficient	
End Behavior	_____ to the left and _____ to the right
Turning Points	at most _____

Sketch of the graph:



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

Degree	
Sign of Leading Coefficient	
End Behavior	_____ to the left and _____ to the right
Turning Points	at most _____

Sketch of the graph:



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

Degree	
Sign of Leading Coefficient	
End Behavior	_____ to the left and _____ to the right
Turning Points	at most _____

Sketch of the graph:



How many attempts? \_\_\_\_.  
How well did you do?



Need help!



Just OK!



Splendid!

I HAVE TO KEEP IN MIND THAT...

### SKETCH

