Math 4 Honors Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lesson 7-1 Quiz Prep Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***NO CALCULATOR***

**Station 1**

**Differentiate each function below. Leave your answers in a tastefully simplified form.**



1.  2.

*Write your answer in factored form.*

*Write your answer as a single fraction in radical form.*

3. 

**Station 2**

Use the function below to answer the following.



1. For what values of *x* is *f* increasing? *Use interval notation.*

For what values of *x* is *f* decreasing? *Use interval notation.*

Increasing :

Decreasing:

1. Identify any extrema.

OVER 🡪

**Station 3**

1. If  then  \_\_\_\_\_\_.
2. 1/3 B.) -2/3 C.) 1 D.) 4/3 E.) 3
3.  \_\_\_\_\_\_.
4.  B.)  C.)  D.)  E.) 
5. Find for 
6.  B.)  C.)  D.)  E.) 

**Station 4**

Given .

1. For what values of *x* is *f* concave up? *Use interval notation.*

For what values of *x* is *f* concave down? *Use interval notation.*

Up:

Down:

b. List the *x*-values for the point(s) of inflection