

**Math 3B Unit 5 Lesson 1 - Investigation 1 p. 321 #1,2,4 – 8 – Modeling with Polynomial Functions**

**1.**

**2a.**

**2b.**

**2c.**

**4a.**

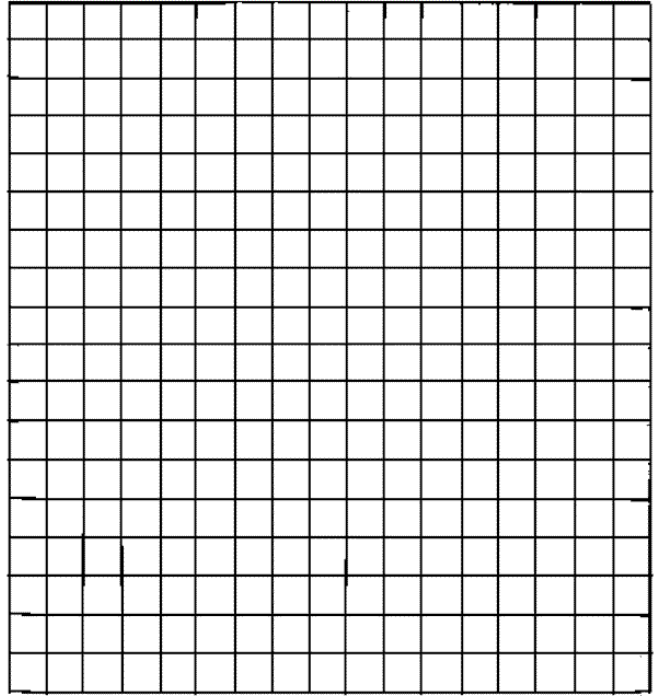
**4b.**

**4c.**

5a.

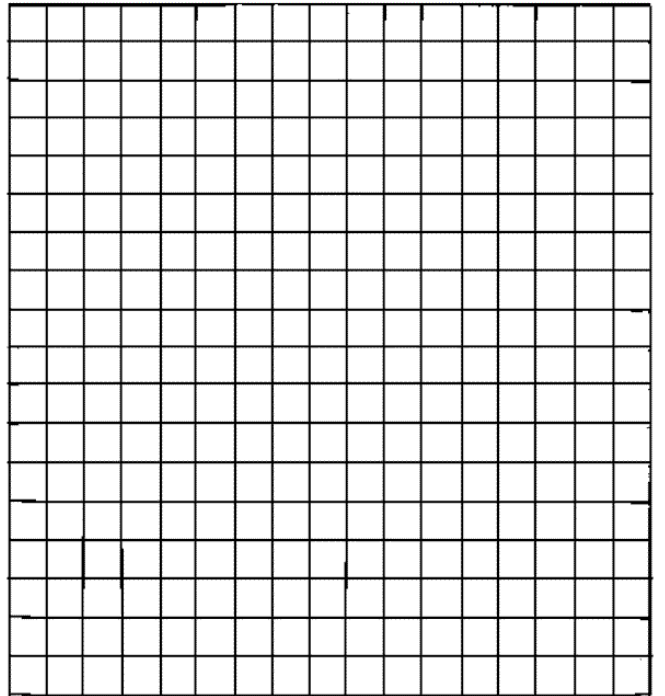
i. Local Max:

Local Min:



ii. Local Max:

Local Min:



5c.

5d.

6a.

6b.

7a.

7b.

7c.

7d.

7e.

**8a. Do ALL functions from #7b and #7d**

For **EVEN degree** polynomials:

- When the leading coefficient is positive:
  
  
  
  
  
  
  
  
  
  
- When the leading coefficient is negative:

For **ODD degree** polynomials:

- When the leading coefficient is positive:
  
  
  
  
  
  
  
  
  
  
- When the leading coefficient is negative:

**8b.**