Math 1 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
**2-2 Practice 4** Date\_\_\_\_\_\_\_\_\_

1. You visit Wheaton Metro Station in Maryland and ride their escalator which is 115 feet tall and lowers the riders 0.697 ft/sec. After 1 second your height would be 114.303 ft, after two seconds your height is 113.606 ft and after 3 seconds the height would be 112.909 ft.

a. List your height for the next 4 seconds

114.303, 113.606, 112.909, \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, …

b. Write a recursive equation to represent your height while riding the escalator.

c. Write an explicit equation to represent your height while riding the escalator.

d. Explain what you would be finding if you found $a\_{120}$.

e. Find $a\_{120}$.

f. Since the total height traveled is 115 feet, how many seconds would it take to reach the bottom of the escalator?

2. Julia works at a kiosk in the mall that sells sunglasses. She gets paid $20.00 just to show up and work, but then makes a commission of $5 on each pair of glasses she sells.

1. What would  represent in this situation?
2. What term would $20 be in the sequence?
3. List the first four terms of Julia’s pay for a day.

\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_

1. Write an explicit formula that models Julia’s pay.
2. Write a recursive formula that models Julia’s pay.
3. Which formula would be best to use to answer the following question: How much money will Julia get paid if she works and sells 15 sunglasses? Solve it.
4. How many sunglasses did Julia sell if she got paid $275?