**NC Math 1B Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Unit 7B Lesson 3 Homework: Comparing Linear and Exponential Data**

**I. Determine whether each scatter plot would best be modeled by a linear function, exponential function, or neither.**



1. 2. 3. 4. 

**II. State whether the following sets of variables would show a positive, negative, or no correlation.**

1. Weight of a car and its gas mileage
2. An adult hand size and his or her salary
3. Money earned by a hostess and the time spent working
4. Time money sits in a savings account and the interest it earns
5. Speed you drive and the length of time it takes to reach your destination

**III. Multiple Choice**

1. The amount a window washer charges varies depending upon the number of hours worked and the type of windows. The table shows the amount charged for several jobs. Which graph represents the data?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Hours Worked** | 1 | 3 | 5 | 6 | 3 | 1 |
| **Amount Charged** | $20 | $50 | $70 | $80 | $60 | $30 |



1. Refer to question #1 above: which ordered pair represents the amount charged for a job that took 5 hours of work.
2. (5, 70) B. (70, 5) C. (3, 50) D. (50, 3)
3. Refer to question #1 above: Which equation best represents the data?
4. $y=13x$ B. $x=11y+17$ C. $y=5x+35$ D. $y=10x+20$
5. Refer to question #1 above: What is the most accurate interpretation of the slope of the line?
6. For each increase of 1 hour of time, the cleaning charge increases by about $5.
7. The window washer charges $20 for appearing at the job site.
8. For each increase of 1 hour of time, the cleaning charge increase by about $0.
9. For each hour of time, the cleaning charge is about $13.
10. Refer to question #1 above: What would be the best prediction for the cost of an average job that requires 4 hours of work?
11. $50 B. $100 C. $60 D. $80