Name:_____

1. Mrs. Denny has taken an online math class and is now completing her last assessment. As she answers each question, the progress bar at the bottom of the screen shows what portion of the test she has finished. She has just completed Question 18, and the progress bar shows she is 30% complete. How many total questions are on the test? (Use a table, double line diagram, equation, to justify your answer)

2. Your family takes a roadtrip to Cedar Point in Ohio. The driver drives 60 minutes at a constant speed of 50 miles per hour. They reach the highway, quickly speeds up, and drives for another 30 minutes at constant speed of 75 miles per hour.

   A.   How far did you and your family member travel altogether?

   B. One of your friends was travelling to Cedar Point on the train but left from the same location at the same time. If the train traveled at a constant speed of 70 miles per hour, explain why your friend would reach your relatives house first. Use words, diagrams, or numbers to explain your reasoning.

3. Mrs. Carley hopes build a sandbox for her nieces and nephews in her back yard.   A standard sandbox is approximately 25 feet by 50 feet. She figures that she will need the sand to be one foot deep. She goes to Lowe's to shop for sand and sees the following signs containing bags of sand.

BRAND A BAG   50lbs for $8   BRAND B BAG   140lbs for $20

    A. What is the rate that Brand A and B are selling for? Give the rate and then specify the unit rate/rate unit.

    B. Which brand is offering the better value? Explain your answer.

4. Carl and Deb have different part-time jobs during the summer months. They are both paid at a constant rate of dollars per hour. The tables below show Carl and Deb's total income(amount earned) for working a given amount of time.

Carl:

Hours	3	6	9	12	15	18	21	24	27
Dollars	24			144		216		288	324

Deb:

Hours	2	4	6	8	10	12	14	16	18
Dollars	16		48		80	216		128	

    A.   Find the missing values in the two tables above.

    B. Who makes more per hour?   Justify your answer.

    C. Write how much Carl makes as a rate. What is the unit rate?

    D. How much money would Carl earn for working 16 hours?

E. What is the ratio between how much Carl makes per hour and how much Deb makes per hour?

F. Deb works 1/8 hours/dollar. Write a one or two-sentence explanation of what this rate means. Use this rate to find how long it takes for Deb to earn $240.