BELL WORK

Each month Jean's phone bill includes a basic fee of $25 plus a charge of $0.07 per minute for the number of minutes of long-distance calls she makes. If Jean's monthly bill was $33.75, how many long-distance minutes did Jean use?

EXAMPLE 1: The shipping and handling charges for a mail order company are $2.75 fixed charge and $0.50 per pound. Write a function to find "C" the cost of mailing an order weighing "p" pounds.

1. Equation: _____ In function notation: _____

2. What is the value of C(20)?

    Meaning of this question in words: _____

    C(20) = _____

3. What is the value of p if C(p) = 56?

    Meaning of this question in words: _____

    p = _____

4. If an order weighs between 3.5 and 4 pounds, what is the domain and range of this situation?

    Domain: _____ Range: _____

5. *Circle one:* The domain is discrete / continuous.

EXAMPLE 2: At a rental company, small trucks rent for $19.99 and a charge of $0.25 per mile is added. Write a function to find "c" the cost of renting a small truck for "m" miles.

1. Equation: _____ In function notation: _____

2. What does it cost to rent the truck to drive 32 miles? _____

3. If the cost for renting the truck "m" miles is $300.50, how many miles was the truck

   driven? _____

4. If the truck is driven at least 20 miles but no more than 45 miles, what is the range of the function for this situation?

   A. $20 \leq m \leq 45$ C. $24.99 \leq c \leq 31.24$

   B. $0 \leq m \leq 20$ D. $21.99 \leq c \leq 29.99$

EXAMPLE 3: An online music service lets customers download an unlimited number of songs for $0.25 each after paying a monthly membership fee of $5.00. The total amount of money a customer spends on music in dollars in a single month can be found using the function $y = 0.25x + 5$.

1. _____ What does the variable x represent in this function?

   A. The total amount of money the customer spends on music each month

   B. The number of songs the customer downloads each month

   C. The number of customers that use the music service

   D. The cost of downloading one song

2. _____ The music service determines that their average customer spends between $10 and $12.25 each month. What is the domain of the function for this situation?

   A. $20 \leq x \leq 29$

   B. The set of all integers from 20 to 29

   C. $10 \leq y \leq 12.25$

   D. The set of all integers from 10 to 12

3. *Circle one:* The domain is discrete / continuous.