Due Date: ________________

Directions: Complete each **showing all your work**. Each question is worth 4 points.

1. Jenny wants to rent a truck for one day. She contacted two companies. Laguna’s Truck Rentals charges $20 plus $2 per mile. Salvatori’s Truck Rentals charges $3 per mile. After how many miles will the total cost for both companies be the same?

   A  4
   B  6
   C  20
   D  60

2. Annette plans to visit an amusement park where she must pay for admission and purchase tickets to go on the rides. Annette wants to find the total cost for a day at the amusement park. She wrote the equation \( c = 1.50x + 12 \) to predict \( c \), the total cost for a day at the amusement park. What could the number 12 represent in Annette’s equation?

   A  the number of rides
   B  the cost of admission
   C  the cost of each ticket
   D  the number of tickets

3. A crane is lowering a concrete block from a height of 270 feet above the ground at a constant rate of 2.5 feet per second. Which function can be used to determine \( h \), the height, in feet, above the ground of the concrete block after \( s \) seconds?

   A  \( h = 270s + 2.5 \)
   B  \( h = 2.5s + 270 \)
   C  \( h = 270 - 2.5s \)
   D  \( h = 2.5s - 270 \)
4. Bert's cab company charges $1.00 plus an additional $3.00 per mile for a ride. Madeline's cab company charges $3.00 plus an additional $2.00 per mile for a ride. Write a system of linear equations that shows the cost in dollars, \( y \), for a cab ride of \( x \) miles for each cab driver.

\[
\text{Bert's: } \quad \text{Madeline's: }
\]

At what distance, in miles, will the cost be the same for both companies?

\textit{Show your work.}

\[
\text{Answer: } \quad \text{miles}
\]

Which cab driver's charge will be less for a ride that is 10 miles in distance?

\textit{Answer: }

Use words and numbers to explain how you determined your answer.

________________________________________________________________________

________________________________________________________________________
The cost to rent a paddleboat at the city park includes an initial fee of $7.00, plus $3.50 per hour. Which equation models the relationship between the total cost, $y$, and the number of hours, $x$, that the paddleboat is rented?

A  \[ y = 3.5x + 7 \]

B  \[ y = 7x + 3.5 \]

C  \[ y = \frac{x}{7} + 3.5 \]

D  \[ y = \frac{x}{3.5} + 7 \]