Practice – Part 3

Instructions: Answer each of the following practice questions on a separate piece of paper. Step by step solutions are provided under the Solutions tab. You will learn the material more thoroughly if you complete the questions before checking the answers under the Solutions tab in Moodle.

1. Natasha bought a new truck and wanted to check the truck's mileage. In the following table of values, she recorded the distance she travelled after using specific amounts of gasoline.

Gasoline Used (L)	25	50	75	100
Distance Travelled (km)	202	404	606	808

   a. Identify the dependent variable and the independent variable.

   b. Is the data discrete or continuous? Justify.

   c. Graph the data.
   Be sure to include
      - an appropriate scale
      - the labelled axes (including units)
      - the dependent variable on the *y*-axis and the independent variable on the *x*-axis
      - a title
      - a line connecting points when applicable (continuous: yes; discrete: no)

   d. Does the graph represent a linear relation? Justify.

2. Kyle works 4 to 6 hours per day and is paid $15/hour at 30 minute intervals.

   a. Identify the dependent variable and the independent variable.

   b. Complete the table of values when Kyle works 4.0, 4.5, 5.0, 5.5, and 6 hours.

Hours Worked	Pay ($)
4.0	
4.5	
5.0	
5.5	
6.0	

   c. Is the data continuous or discrete? Should the points be connected? Explain.

d. Graph the data.
Be sure to include
- an appropriate scale
- the labelled axes (including units)
- the dependent variable on the *y*-axis and the independent variable on the *x*-axis
- a title
- a line connecting points when applicable (continuous: yes; discrete: no)

e. Does the graph represent a linear relation? Justify.