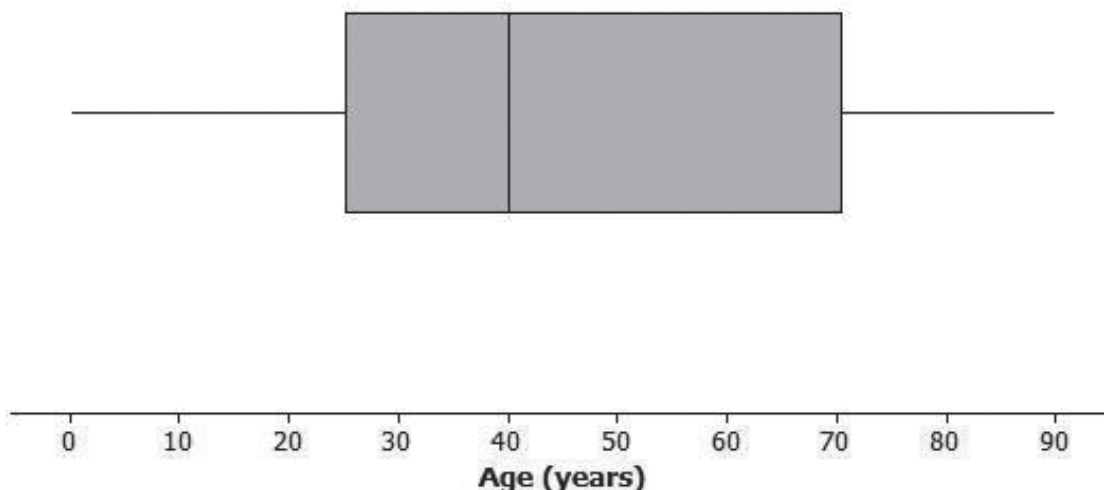NAME: _____   PERIOD: _____   DATE: _____

Homework Problem Set

The following box plot summarizes ages for a random sample from a made-up country named Math Country.
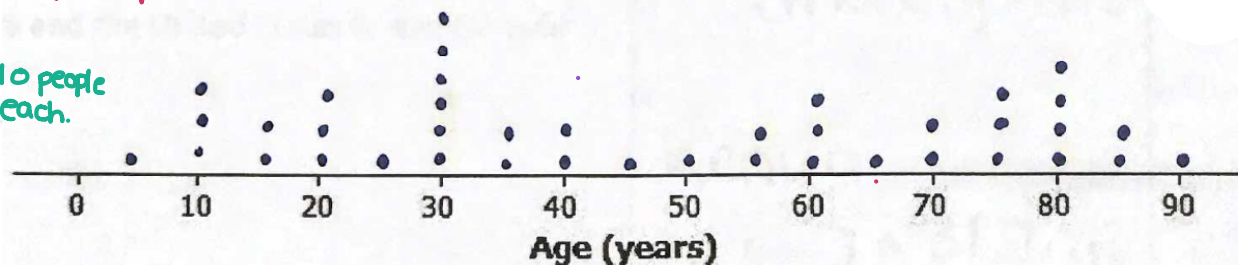
Boxplot of Ages for Sample From Math Country

Age (years)

1. Make up your own sample of forty ages that could be represented by the box plot for Math Country. Use a dot plot to represent the ages of the forty people in Math Country.

Need 10 people for each quartile (25%)

Ages 0-25
Ages 25-40 } *10 people each.*
Ages 40-70
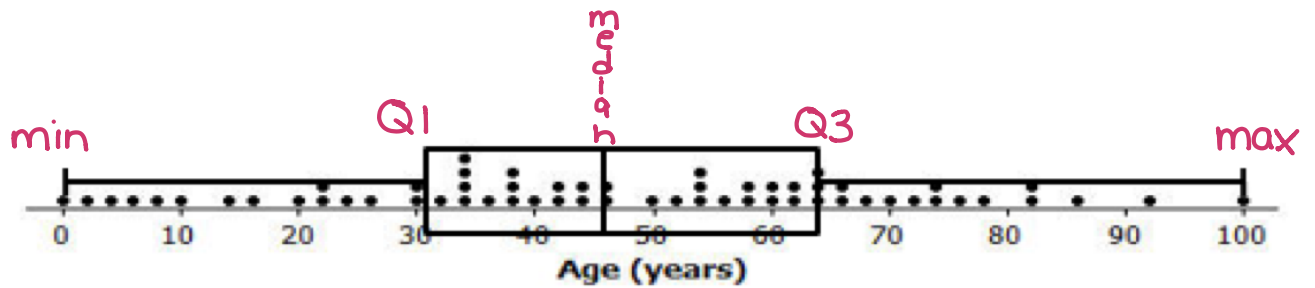*Ages 70-90*

Age (years)

2. Is the sample of forty ages represented in your dot plot of Math Country the only sample that could be represented by the box plot? Explain your answer.

There are many different possibilities. Any data set with the same 5 number Summary would result in the same box plot.

3. The following is a dot plot of sixty ages from a random sample of people from Japan in 2010.

   Draw a box plot over this dot plot.

4. Based on your box plot, would the median age of people in Japan be closer to the median age of people in Kenya or the United States? Justify your answer.   Use graph from pg.

median age: Japan → 45
            US → 40
            Kenya → 18
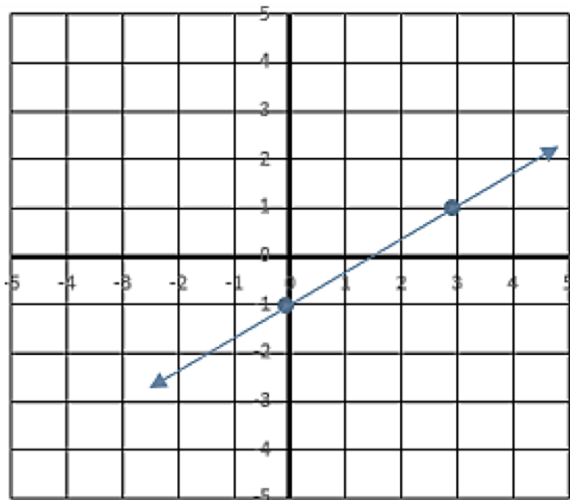
Japan is closer to median age of U.S.

5. What does the box plot of this sample from Japan indicate about the possible differences in the age distributions of people from Japan and Kenya?

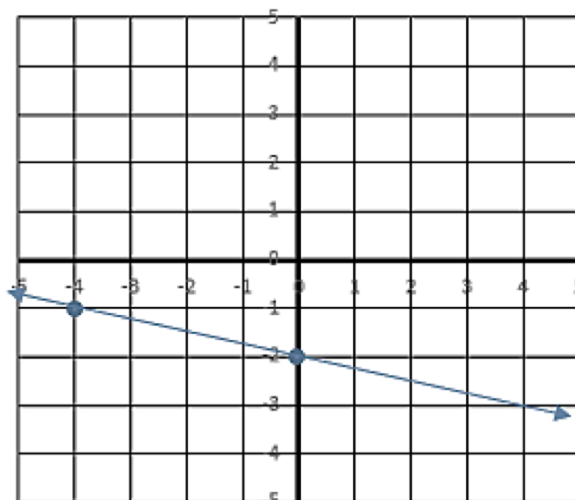A much greater percentage of the people in Japan are in the older age groups, than is the case for Kenya.

REVIEW—Slope and Graphing Lines

6. Draw the graph of the line given a point on the line and the slope of the line.
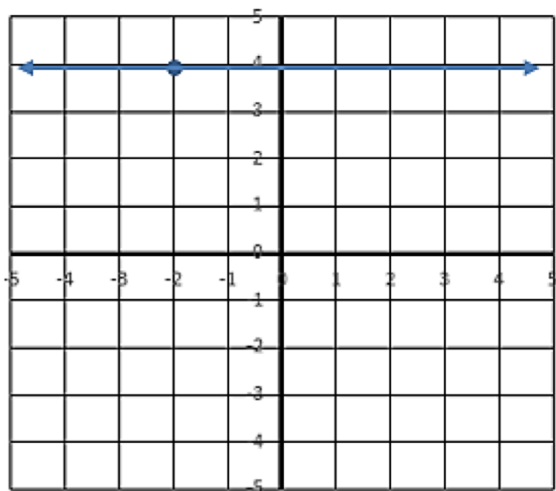
A. Slope $= \dfrac{2}{3}$ and point A (3, 1)

B. Slope $= -\dfrac{1}{4}$ and point B (0, −2)

C. Slope $= 0$ and point C (−2, 4)

D. Slope $= 2$ and point D (−3, −4)