4

A bag contains a total of 60 marbles. A marble is to be chosen at random from the bag. If the probability that a blue marble will be chosen is 0.35, how many marbles in the bag are blue?
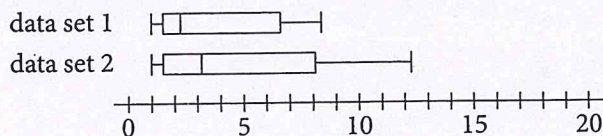
A) 21

B) 25

C) 35

D) 39

5

For a person m miles from a flash of lightning, the length of the time interval from the moment the person sees the lightning to the moment the person hears the thunder is k seconds. The ratio of m to k can be estimated to be 1 to 5. According to this estimate, the person is how many miles from a flash of lightning if the time interval is 25 seconds?

A) 10
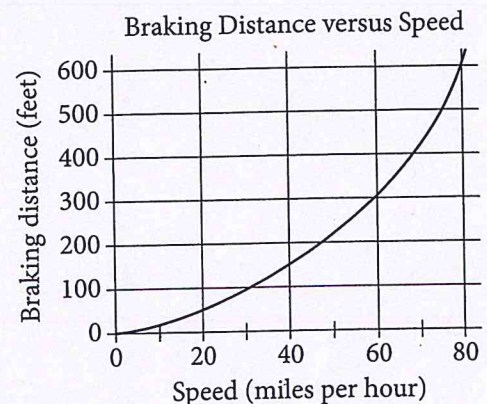
B)   9

C)   6

D)   5

6

data set 1

data set 2

The box plots above summarize two data sets. Based on the box plots, which of the following must be true?

  I. The range of data set 2 is greater than the range of data set 1.

  II. The median of data set 2 is greater than the median of data set 1.

A) I only

B) II only

C) I and II

D) Neither I nor II

7

Braking Distance versus Speed

The graph above shows the relationship between the speed of a particular car, in miles per hour, and its corresponding braking distance, in feet. Approximately how many feet greater will the car's braking distance be when the car is traveling at 50 miles per hour than when the car is traveling at 30 miles per hour?

A)   75

B)   125

C)   175

D)   250

4

A bag contains a total of 60 marbles. A marble is to be chosen at random from the bag. If the probability that a blue marble will be chosen is 0.35, how many marbles in the bag are blue?

A) 21

B) 25

C) 35

D) 39

35% chance of picking blue
so 35% of the 60 marbles are blue

$$(.35)(60) = 21$$

5

For a person m miles from a flash of lightning, the length of the time interval from the moment the person sees the lightning to the moment the person hears the thunder is k seconds. The ratio of m to k can be estimated to be 1 to 5. According to this estimate, the person is how many miles from a flash of lightning if the time interval is 25 seconds?
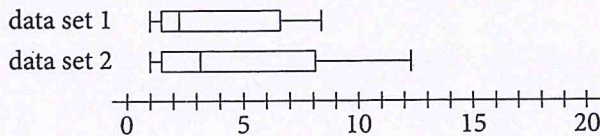
A) 10

B) 9

C) 6

D) 5

$$\frac{m \text{ miles}}{k \text{ sec}} = \frac{1}{5}$$

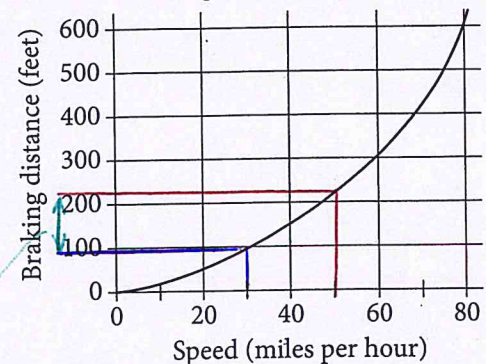$$\frac{m}{25} = \frac{1}{5}$$

$$m = 5$$

6

data set 1

data set 2

The box plots above summarize two data sets. Based on the box plots, which of the following must be true?

I. The range of data set 2 is greater than the range of data set 1. ✓

II. The median of data set 2 is greater than the median of data set 1. ✓

A) I only

B) II only

C) I and II

D) Neither I nor II

7

Braking Distance versus Speed

(graph: Braking distance (feet) vs Speed (miles per hour))

The graph above shows the relationship between the speed of a particular car, in miles per hour, and its corresponding braking distance, in feet. Approximately how many feet greater will the car's braking distance be when the car is traveling at 50 miles per hour than when the car is traveling at 30 miles per hour?

A) 75

B) 125

C) 175

D) 250

difference is a little more than 100

1