

Making Box Plots

Lesson 3-13

DATE

TIME

Math Message

- 1 Use a crayon or colored pencil to trace the edges of the tangrams on the top half of *Math Masters*, page TA19.
- 2 Carefully cut out the tangrams. Label the back of each shape with your initials.
- 3 The seven tangrams have a combined area that is the same as the square pictured on the bottom of the page. Fit the tangram pieces inside the square to cover its area.

- 4 a. Record the five-number summary for the rabbit puzzle times.

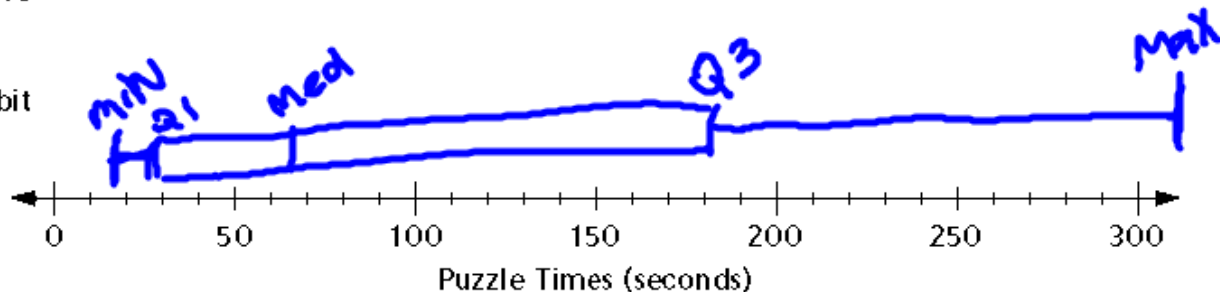
16, 16, 18, 22, 31, 43, 44, 81, 130, 178, 179, 240, 240, 309

Min = 16 Max = 309 Q1 = 22 Med = 62.5 Q3 = 179

- c. Make a box plot for the times for each puzzle.

Horse

Rabbit



- 5 a. Describe how your two box plots are similar and how they are different.

- b. Explain which box plot has more variation—that is, which one is more spread out.

- c. Explain which puzzle took less time to complete and how you know.

Interquartile Range (IQR)

Lesson 3-13

DATE _____

TIME _____

- 1 a. Find the range for the two timed tangram puzzles.

Rabbit: _____

Horse: _____

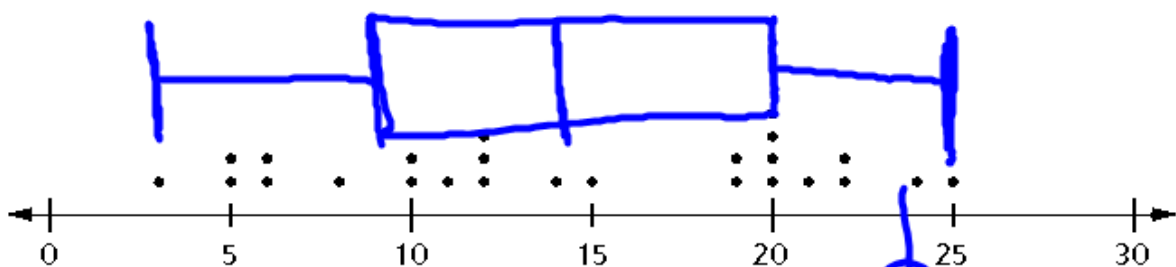
- b. Find the IQR (**Interquartile range**) for each tangram-puzzle data set.

Rabbit: _____

Horse: _____

- 2 Draw a box plot to represent the dot plot below. Draw the box plot above the dot plot.

Number of Sunny Days

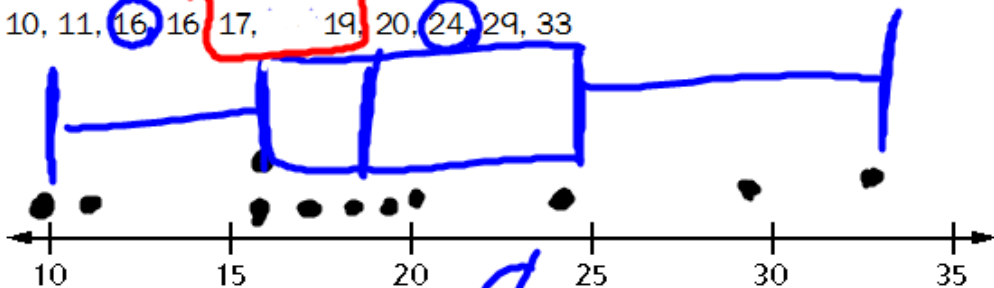


3, 5, 5, 6, 6, 8, 10, 10, 11, 12, 12, 12, 14, 15, 19, 19, 20, 20, 20, 20, 21, 22, 22, 24, 25

Min = 3
 Q1 = 9
 Med = 14
 Q3 = 20
 Max = 25

- 3 Draw a dot plot with a box plot above it for the data values below. Title the graph.

10, 11, 16, 16, 17, 17, 19, 20, 24, 29, 33



Min = 10
 Q1 = 16
 Med = 18
 Q3 = 24
 Max = 33

What is the interquartile range? 8



- 1 Find the GCF and the LCM for 42 and 30.

$$\text{GCF}(42, 30) = \underline{\hspace{2cm}}$$

$$\text{LCM}(42, 30) = \underline{\hspace{2cm}}$$



- 2 Seven students take a survey about cell phone use. The median number of texts sent per day for the group was 25. What is a possible data set for this information?

What is another possible data set?



- 3 In one survey, $\frac{3}{4}$ of those surveyed went to the movies at least once a month. If that were always true, in a town of 243 people, about how many people would go to the movies once a month?

Number model: _____

Solution: _____



- 4 Make an estimate. Then solve.

$$2.7 \overline{)102.6}$$

Number sentence for estimate:

Answer: _____



- 5 **Writing/Reasoning** How does the structure of dividing decimals help you make an estimate for Problem 4?