

Matching Data Representations

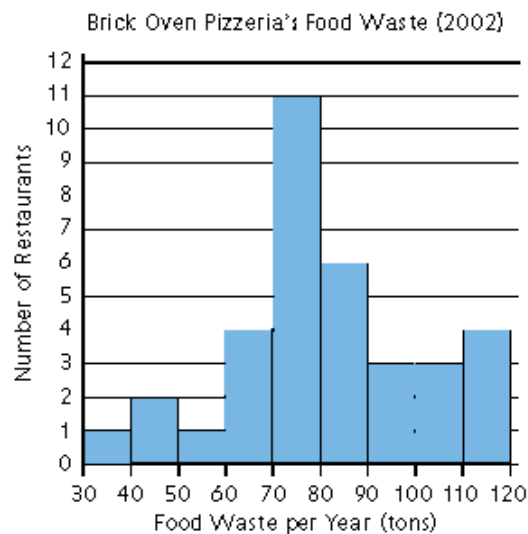
Lesson 3-14

DATE

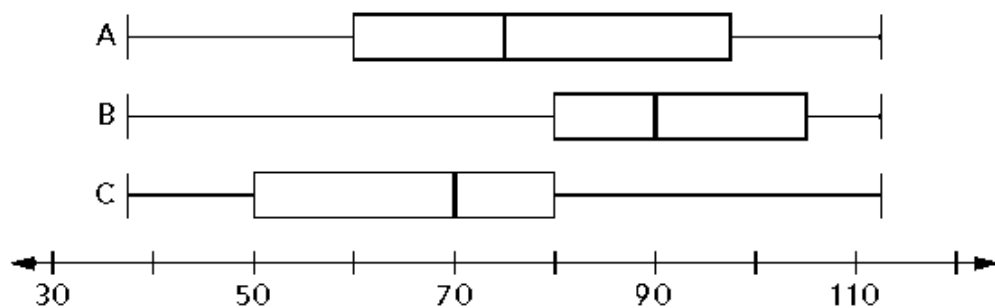
TIME

Math Message

- 1 The histogram below shows the amount of food waste generated by one pizzeria chain in Massachusetts in 2002.



- a. Circle the box plot that matches the histogram data.



- b. Explain how you chose the box plot.

Matching Data Representations (continued)

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Here are titles for four data sets.

Title	Table	Histogram	Box Plot
Number of Millionaires by State in the United States			
Daily High August 2012 Temperatures in Las Vegas			
Record High July Temperatures in Las Vegas			
Sums of the Measures of Three Angles of a Triangle			

- 2 Match the tables with their titles. Write the table number in the Table column above.

Table I

	Frequency
113–114	4
114–115	7
115–116	9
116–117	9
117–118	2

Table II

	Frequency
75–80	1
80–85	0
85–90	1
90–95	6
95–100	7
100–104	14
105–109	2

Table III

	Frequency
172–174	1
174–176	2
176–178	0
178–180	8
180–182	13
182–184	2
184–186	1
186–188	2

Table IV

	Frequency
0–50	20
50–100	13
100–150	7
150–200	2
200–250	4
350–400	3
650–700	1

- 3 Describe how you used the numbers to match the tables to the titles.

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- 4 Cut out the four histograms on *Math Masters*, page 149. Match them with the corresponding title and data table in the chart at the top of journal page 159.

Record notes about the process of matching histograms as you go. Record what decisions you make and why you make them.

- 5 Cut out the four box plots on *Math Masters*, page 150. Match each with a corresponding title and data table on the previous page and with a Problem 4 histogram.

Take notes about the process of matching box plots as you go. Record the decisions you make and why you make them.

- 6 For which type of graph (box plot or histogram) is it easier to find the median? _____
Why? _____

- 7 Explain how the box plot represents the distribution of the data of the number of millionaires per state.

- 8 Why do the lengths of the IQR (interquartile range) differ (shorter or longer)?

Moving Around the Coordinate Grid

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- Graph $A(4, -1)$; $B(6, -5)$; and $C(8, -1)$ using a blank coordinate grid. Connect the points.
- Use the clues below to determine the ordered pairs of triangle DEF .
 - The y -coordinate of point D is the opposite of -1 . $D: (4, \underline{\hspace{1cm}})$
 - The y -coordinate of point E is the opposite of -5 . $E: (6, \underline{\hspace{1cm}})$
 - The y -coordinate of point F is the opposite of -1 . $F: (8, \underline{\hspace{1cm}})$
 - Graph triangle DEF .
- What do you notice about triangle ABC and triangle DEF ?

- Use the clues below to determine the ordered pairs of triangle GHI .
 - The x -coordinate of point G is the opposite of 4 . $G: (\underline{\hspace{1cm}}, -1)$
 - The x -coordinate of point H is the opposite of 6 . $H: (\underline{\hspace{1cm}}, -5)$
 - The x -coordinate of point I is the opposite of 8 . $I: (\underline{\hspace{1cm}}, -1)$
 - Graph triangle GHI .
- What do you notice about triangle ABC and triangle GHI ?

Try This

- Triangle JKL is in Quadrant II, and is a reflection of Triangle GHI . The coordinates for the vertices of Triangle JKL are either the same or the opposite of the coordinates for Triangle GHI . Find the ordered pairs.
 $J: (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$ $K: (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$ $L: (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$
- Explain your reasoning.



- 1** One gallon of milk weighs 8.6 pounds. One box of rice weighs $1\frac{1}{2}$ pounds. Which would be lighter to carry upstairs, 6 boxes of rice or 1 gallon of milk? Record a number sentence you can use.

Number sentence:

Solution: _____

SRB
190-192

- 2** Which expressions are equivalent to 0.72? Check all that apply.

$72 \div 100$

$\frac{7.21}{100}$

$0.072 * 100$

$\frac{18}{25} * 1$

SRB
206

- 3** Find two fractions and two decimals between 0.5 and 0.7.

SRB
170

- 4** One out of four students in Ms. Holly's class wears glasses.

What is the ratio of students who do NOT wear glasses to the number of students in the class?

If 7 students wear glasses, how many students do not? _____

SRB
43-46

- 5** The number of push-ups completed by students in gym class is shown below:
10, 5, 25, 8, 6, 10, 15, 28, 32, 40, 14

Median: _____

Range: _____

SRB
285, 291

- 6** Find the least common multiple.

a. LCM (4, 9) = _____

b. LCM (8, 64) = _____

c. LCM (14, 14) = _____

d. LCM (36, 48) = _____

e. LCM (100, 70) = _____

SRB
106