IM K–12 California

GRADE 6

Teacher Resource Copy Masters

UNITS 7-8

Illustrative Mathematics LEARN MATH FOR LIFE | Kendall Hunt

Book 3

Certified by Illustrative Mathematics®

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GRADE 6

UNIT

7

Teacher Resource Copy Masters

LESSON BLACKLINE MASTERS

SAMPLE COPY

address	title	students per copy	written on?	requires cutting?	card stock recommended?	color paper recommended?	used multiple times?	used as a center material?
Activity Grade6.7.4.2	Ordering Rational Number Cards	2	no	yes	no	yes	no	no
Activity Grade6.7.7.2	Points on the Number Line Cards	4	no	yes	no	no	no	no
Activity Grade6.7.8.3	Stories about 9 Cards	2	no	yes	yes	no	no	no
Activity Grade6.7.9.3	What Number Am I Cards	2	no	yes	yes	no	no	no
Activity Grade6.7.18.4	Factors and Multiples Bingo Cards	18	yes	yes	no	no	no	no

SAMPLE COPY

Ordering Rational Number Cards - Set 1 0	Ordering Rational Number Cards - Set 1 $\frac{1}{4}$	Ordering Rational Number Cards - Set 1 1	Ordering Rational Number Cards - Set 1 2
Ordering Rational Number Cards - Set 1 2.5	Ordering Rational Number Cards - Set 1 -8	Ordering Rational Number Cards - Set 1 3	Ordering Rational Number Cards - Set 1 4
Ordering Rational Number Cards - Set 1 $\frac{9}{8}$	Ordering Rational Number Cards - Set 1 5	Ordering Rational Number Cards - Set 1 -7	Ordering Rational Number Cards - Set 1 6
Ordering Rational Number Cards - Set 1 -9	Ordering Rational Number Cards - Set 1 -7.5	Ordering Rational Number Cards - Set 1 30	Ordering Rational Number Cards - Set 1 9
Ordering Rational Number Cards - Set 1 -1	Ordering Rational Number Cards - Set 1 -2	Ordering Rational Number Cards - Set 1 62	Ordering Rational Number Cards - Set 1 15
Ordering Rational Number Cards - Set 1 87	Ordering Rational Number Cards - Set 1 100	Ordering Rational Number Cards - Set 1 $22\frac{1}{2}$	Ordering Rational Number Cards - Set 1 25

SAMPLE COPY

Ordering Rational Number Cards - Set 2 -23	Ordering Rational Number Cards - Set 2 $-22\frac{1}{2}$	Ordering Rational Number Cards - Set 2 -22	Ordering Rational Number Cards - Set 2 -10
Ordering Rational Number Cards - Set 2 7	Ordering Rational Number Cards - Set 2 $\frac{8}{3}$	Ordering Rational Number Cards - Set 2 7.5	Ordering Rational Number Cards - Set 2 $5\frac{1}{2}$
Ordering Rational Number Cards - Set 2 $-5\frac{1}{2}$	Ordering Rational Number Cards - Set 2 -5	Ordering Rational Number Cards - Set 2 -3	Ordering Rational Number Cards - Set 2 -2.5
Ordering Rational Number Cards - Set 2 $-\frac{9}{8}$	Ordering Rational Number Cards - Set 2 10	Ordering Rational Number Cards - Set 2 11	Ordering Rational Number Cards - Set 2 $-\frac{1}{4}$
Ordering Rational Number Cards - Set 2 29	Ordering Rational Number Cards - Set 2 8	Ordering Rational Number Cards - Set 2 53	Ordering Rational Number Cards - Set 2 14
Ordering Rational Number Cards - Set 2 78	Ordering Rational Number Cards - Set 2 16	Ordering Rational Number Cards - Set 2 99	Ordering Rational Number Cards - Set 2 17

SAMPLE COPY

Info Gap: Points on the Number Line
Problem Card 1

The points A, B, C, and D are located on the number line. What is the location of point A?

Info Gap: Points on the Number Line
Data Card 1

- Point A has the same absolute value as B, but a different sign.
- B is less than D.
- Point C is located at -2.
- D is the opposite of C.
- The distance between B and D is $1\frac{1}{2}$.

Info Gap: Points on the Number Line
Problem Card 2

The points X, Y, and Z are located on the number line. What is the location of point Z?

Info Gap: Points on the Number Line
Data Card 2

- The absolute value of X is 2.
- Y is greater than X.
- Point Y is closer to zero than point X is.
- Z is positive.
- The distance between X and Y is 1.
- The distance between Y and Z is 4.

Info Gap: Points on the Number Line
Problem Card 1

The points A, B, C, and D are located on the number line. What is the location of point A?

Info Gap: Points on the Number Line
Data Card 1

- Point A has the same absolute value as B, but a different sign.
- B is less than D.
- Point C is located at -2.
- D is the opposite of C.
- The distance between B and D is $1\frac{1}{2}$.

Info Gap: Points on the Number Line
Problem Card 2

The points X, Y, and Z are located on the number line. What is the location of point Z?

Info Gap: Points on the Number Line
Data Card 2

- The absolute value of X is 2.
- Y is greater than X.
- Point Y is closer to zero than point X is.
- Z is positive.
- The distance between X and Y is 1.
- The distance between Y and Z is 4.

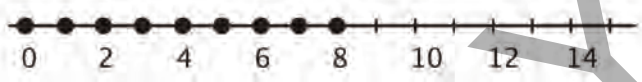
SAMPLE COPY

Stories about 9

A fishing boat can hold fewer than 9 people.

How many people can it hold?

Stories about 9



Stories about 9

{0, 1, 2, 3, 4, 5, 6, 7, 8}

Whole numbers that are at least 0 and are less than 9.

Stories about 9

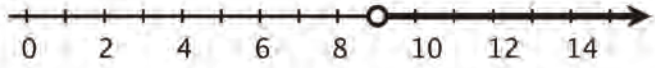
$x > 0$ or $x = 0$, and $x < 9$

Stories about 9

Lin needs more than 9 ounces of butter to make some breadsticks.

How many ounces of butter would be enough for the breadsticks?

Stories about 9



Stories about 9

Any value higher than 9, including non-whole numbers.

Stories about 9

$x > 9$

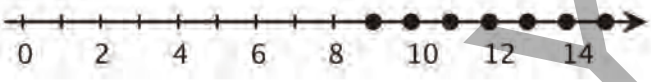
SAMPLE COPY

Stories about 9

A magician will perform her magic tricks only if there are at least 9 people in the audience.

For how many people will she perform her magic tricks?

Stories about 9



Stories about 9

{9, 10, 11, 12 . . .}

Whole numbers that are 9 or higher.

Stories about 9

$x > 9$ or $x = 9$

Stories about 9

A scale can measure up to 9 kilograms of weight.

What weights can the scale measure?

Stories about 9

Stories about 9

Any value from 0 to 9, including non-whole numbers.

Stories about 9

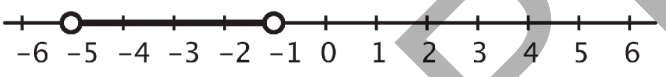
$x > 0$ or $x = 0$, and

$x < 9$ or $x = 9$

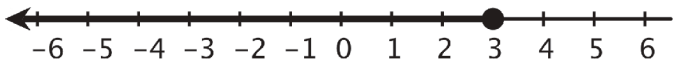
SAMPLE COPY

What Number Am I? -5	What Number Am I? -4	What Number Am I? -1	What Number Am I? 0
What Number Am I? 1	What Number Am I? 2	What Number Am I? 4	What Number Am I? 5
What Number Am I? $x > 1$	What Number Am I? $x < 1$	What Number Am I? $x < -3$	What Number Am I? $x < -1$
What Number Am I? $x > -6$	What Number Am I? $x < 6$	What Number Am I? $x > -3$	What Number Am I? $x > -1$

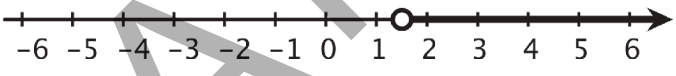
What Number Am I?



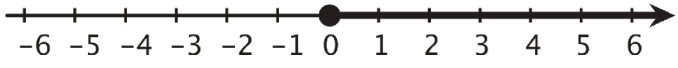
What Number Am I?



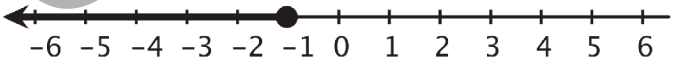
What Number Am I?



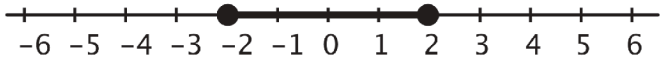
What Number Am I?



What Number Am I?



What Number Am I?



SAMPLE COPY

Factors and Multiples Bingo All common factors of 24 and 36	Factors and Multiples Bingo All numbers with 4 or more factors	Factors and Multiples Bingo All even square numbers
Factors and Multiples Bingo All even multiples of 3	Factors and Multiples Bingo All numbers divisible by 8	Factors and Multiples Bingo All two-digit numbers with digits that sum to 6
Factors and Multiples Bingo All common multiples of 4 and 10	Factors and Multiples Bingo All common factors of 45 and 90	Factors and Multiples Bingo All common factors of 25 and 75
Factors and Multiples Bingo All odd square numbers	Factors and Multiples Bingo All prime numbers greater than 17	Factors and Multiples Bingo All prime numbers less than 19
Factors and Multiples Bingo All single-digit composite numbers	Factors and Multiples Bingo All powers of 10	Factors and Multiples Bingo All multiples of 15
Factors and Multiples Bingo All numbers with exactly 3 factors	Factors and Multiples Bingo All even multiples of 7	Factors and Multiples Bingo All cubic numbers
Factors and Multiples Bingo All odd multiples of 3	Factors and Multiples Bingo All factors of 100	Factors and Multiples Bingo All odd factors of 180

SAMPLE COPY

Factors and Multiples Bingo

24	20	33	15
7	4	14	84
99	10	36	11
12	26	0	75

Factors and Multiples Bingo

4	21	30	16
8	14	15	42
9	19	32	1
22	46	39	25

Factors and Multiples Bingo

44	25	31	5
76	48	24	27
92	18	3	16
62	56	70	0

Factors and Multiples Bingo

34	15	11	50
6	44	42	75
35	90	3	18
60	16	80	10

Factors and Multiples Bingo

4	19	13	54
65	42	12	7
33	9	23	28
66	26	84	18

Factors and Multiples Bingo

3	14	1	0
66	24	12	5
36	60	37	48
6	56	63	10

SAMPLE COPY

Factors and Multiples Bingo

32	25	31	57
68	42	48	60
3	0	64	28
66	76	81	10

Factors and Multiples Bingo

30	15	13	0
67	45	12	50
55	20	36	18
63	16	49	64

Factors and Multiples Bingo

4	15	21	0
16	42	52	17
30	45	35	1
6	26	8	4

Factors and Multiples Bingo

4	18	21	5
26	24	48	71
45	19	32	8
61	16	36	10

Factors and Multiples Bingo

56	63	64	60
8	25	42	36
35	9	37	1
66	36	81	100

Factors and Multiples Bingo

3	25	17	56
16	42	40	7
85	9	36	48
63	49	26	14

SAMPLE COPY

Factors and Multiples Bingo

75	24	81	33
22	63	14	92
90	49	8	3
26	12	70	5

Factors and Multiples Bingo

3	60	0	23
20	26	4	52
18	45	46	42
63	76	34	25

Factors and Multiples Bingo

99	14	28	39
64	3	75	18
71	9	0	48
80	19	15	33

Factors and Multiples Bingo

6	25	15	32
21	4	7	16
24	10	66	19
35	13	50	30

Factors and Multiples Bingo

6	44	84	0
66	19	30	32
9	1	54	7
62	36	15	12

Factors and Multiples Bingo

37	1	31	17
4	27	44	16
65	18	35	55
8	56	11	42

SAMPLE COPY

GRADE 6

UNIT

8

Teacher Resource Copy Masters

LESSON BLACKLINE MASTERS

SAMPLE COPY

address	title	students per copy	written on?	requires cutting?	card stock recommended?	color paper recommended?	used multiple times?	used as a center material?
Activity Grade6.8.2.4	Sifting for Statistical Questions Cards	1	no	no	no	no	no	no
Activity Grade6.8.8.2	Sorting Histograms Cards	4	no	yes	yes	no	no	no
Activity Grade6.8.8.3	Getting to School Handout	2	no	no	no	no	no	no
Activity Grade6.8.14.3	Mean or Median Cards	4	no	yes	no	no	no	no
Activity Grade6.8.17.2	Sea Turtles Cards	2	no	yes	no	no	no	no

SAMPLE COPY

Sifting for Statistical Questions

A. What fraction of the people in your school wear glasses?

Sifting for Statistical Questions

B. How many centimeters tall is the door of your classroom?

Sifting for Statistical Questions

C. What percentage of students in your class say they like dogs better than cats?

Sifting for Statistical Questions

D. What is the average age of the teachers at your school?

Sifting for Statistical Questions

E. What do students in your class prefer to have on a hot dog: ketchup, mustard, both ketchup and mustard, or neither?

Sifting for Statistical Questions

F. What is a typical number of students per class in your school?

Sifting for Statistical Questions

G. Who is the current Vice President of the United States?

Sifting for Statistical Questions

H. How old is the principal at your school?

Sifting for Statistical Questions

I. What is the most common favorite color for the students in your class?

Sifting for Statistical Questions

J. Do students at your school generally get more sleep on school nights than on weekends and holidays?

Sifting for Statistical Questions

K. Who is is the oldest staff member at the school?

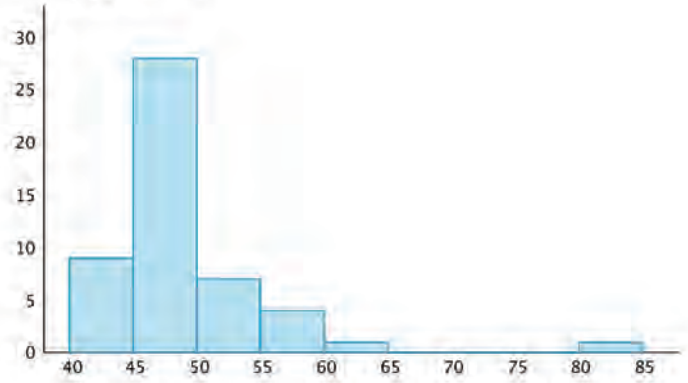
Sifting for Statistical Questions

L. What day of the week is today?

SAMPLE COPY

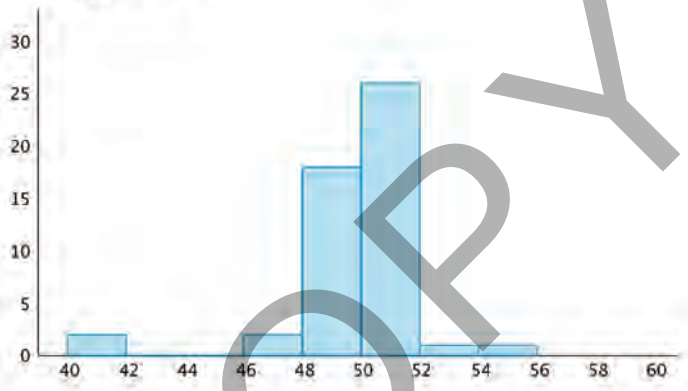
Sorting Histograms

Histogram A



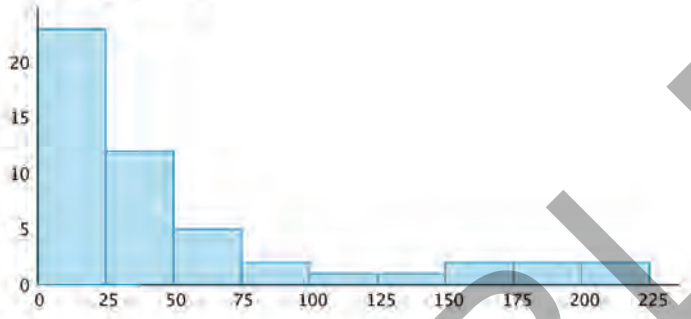
Sorting Histograms

Histogram E



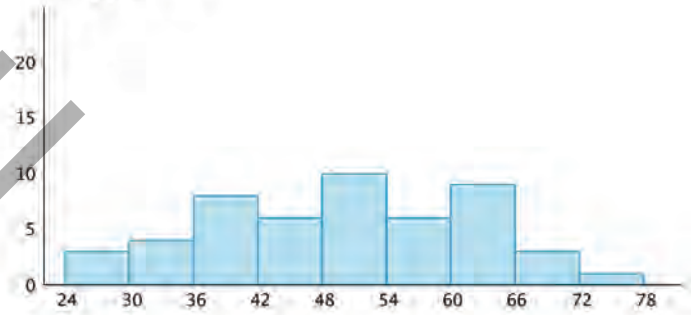
Sorting Histograms

Histogram B



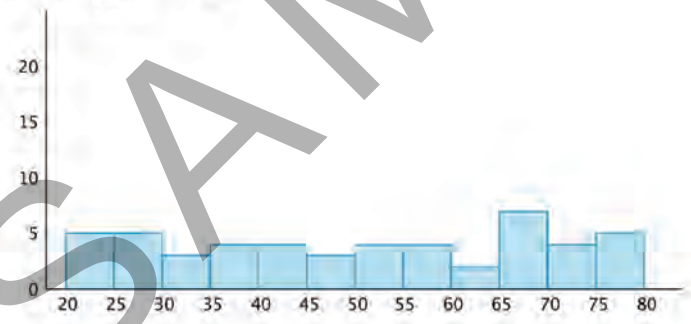
Sorting Histograms

Histogram F



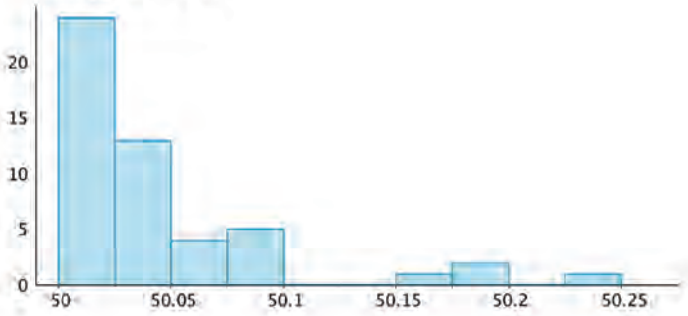
Sorting Histograms

Histogram C



Sorting Histograms

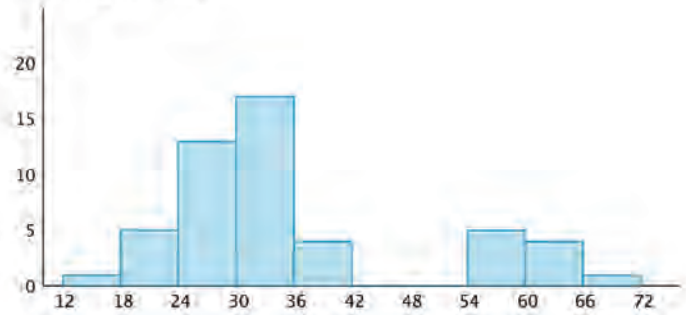
Histogram G



SAMPLE COPY

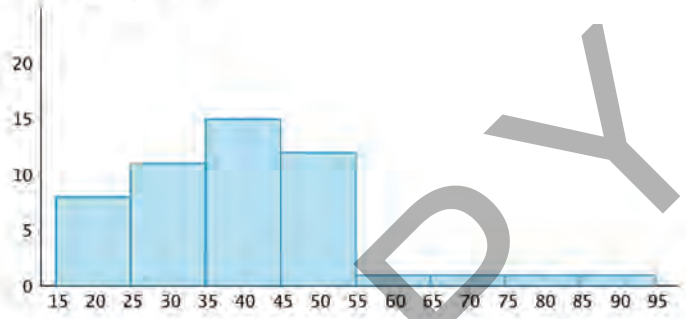
Sorting Histograms

Histogram D



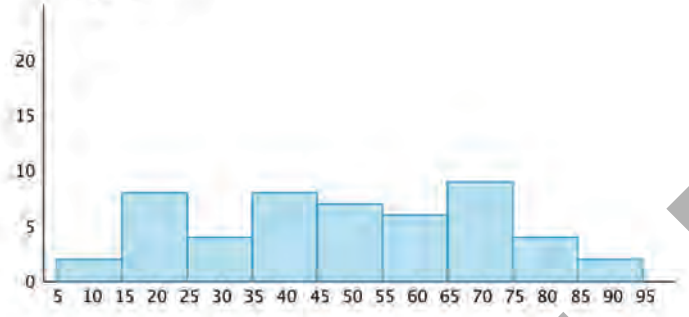
Sorting Histograms

Histogram H



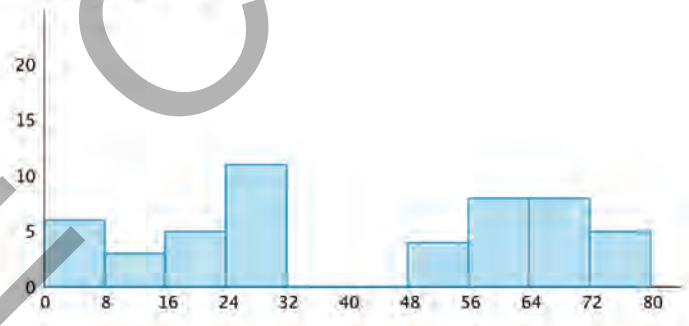
Sorting Histograms

Histogram I



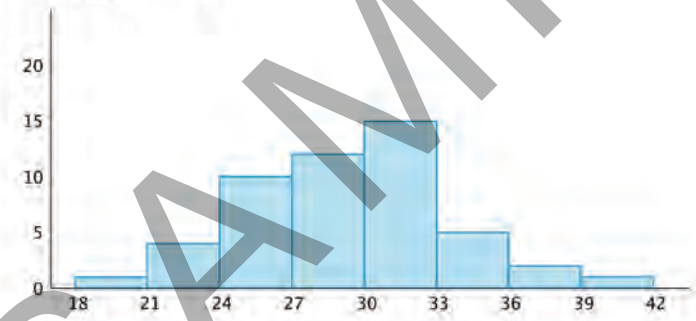
Sorting Histograms

Histogram K



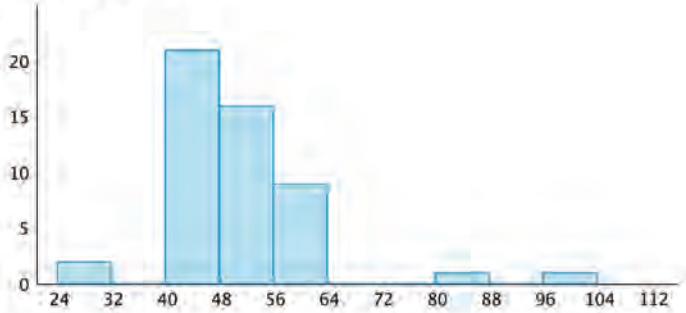
Sorting Histograms

Histogram J



Sorting Histograms

Histogram L



SAMPLE COPY

methods of travel	frequency
walk	
bike	
scooter or skateboard	
school bus	
car	
public transportation	
other	

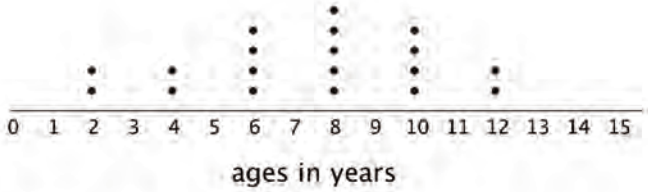
minutes of travel time	frequency
0 to less than 5 minutes	
5 to less than 10 minutes	
10 to less than 15 minutes	
15 to less than 20 minutes	
20 to less than 25 minutes	
25 to less than 30 minutes	
30 to less than 35 minutes	
35 to less than 40 minutes	
40 to less than 45 minutes	
45 to less than 50 minutes	

SAMPLE COPY

Mean or Median?

Card A

Ages of 20 dogs being treated at an animal hospital



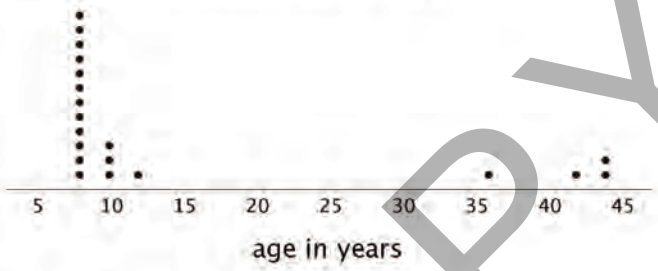
Mean: Approximately 7.8 years old

Median: 8 years old

Mean or Median?

Card D

Ages of 20 people at an 8-year-old's birthday party



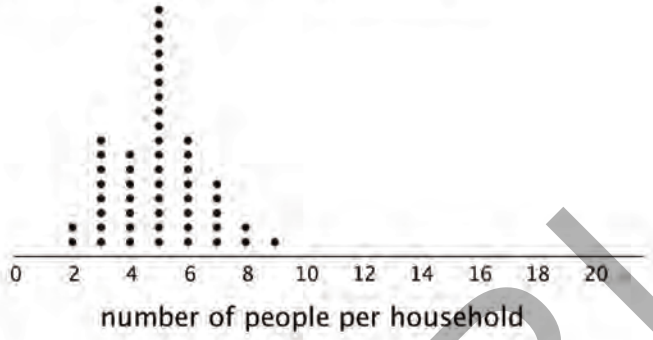
Mean: Approximately 15 years old

Median: 8 years old

Mean or Median?

Card B

Size of household of 50 people in Ireland



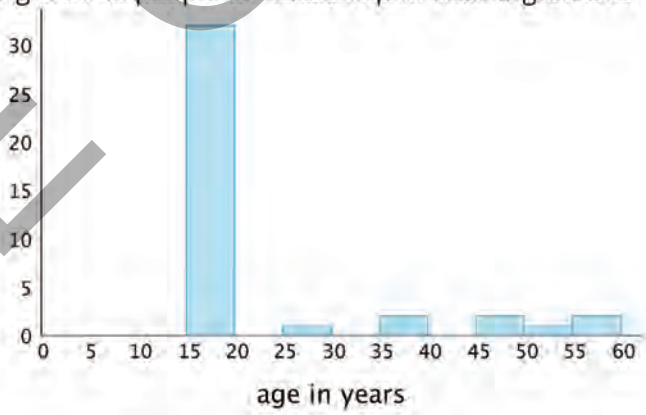
Mean: Approximately 5 people per household

Median: 5 people per household

Mean or Median?

Card F

Ages of 40 people on a field trip to Washington D.C.



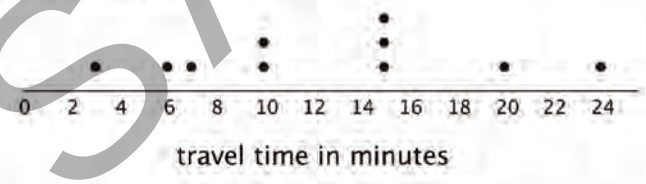
Mean: Approximately 21.3 years old

Median: 15 years old

Mean or Median?

Card C

Time it took ten sixth-grade students in New Zealand to travel to school



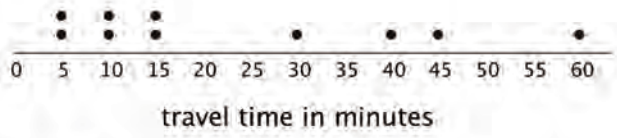
Mean: Approximately 12.5 minutes

Median: 12.5 minutes

Mean or Median?

Card E

Time it took ten sixth-grade students in South Africa to travel to school



Mean: Approximately 24 minutes

Median: 15 minutes

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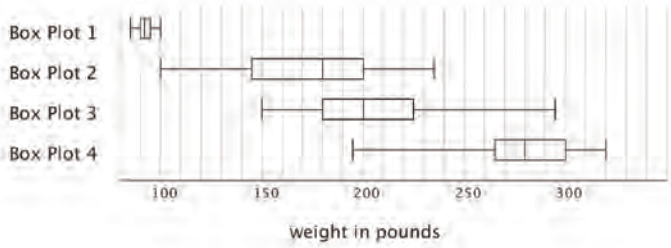
Info Gap: Sea Turtles

Problem Card 1

The box plots represent data on the weights of several species of sea turtles that nest at the Outer Banks of North Carolina. Two of the species are the olive ridley and the hawksbill.

Which two box plots represent the data for the weights of olive ridley and hawksbill sea turtles?



Info Gap: Sea Turtles

Data Card 1

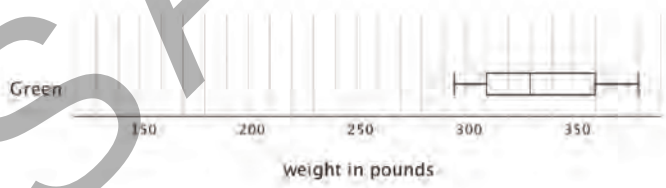
- The median for the hawksbill data is about twice the median for the olive ridley data.
- The range for the hawksbill data is 135 pounds.
- The IQR for the olive ridley data is 5 pounds and the range is 15 pounds.
- The heaviest weight in the olive ridley data is 100 pounds.

Info Gap: Sea Turtles

Problem Card 2

Loggerhead and green sea turtles are two species that also nest at the Outer Banks. Here is the box plot for a set of data on weights of green sea turtles.

a. Which of the two species has a heavier typical weight? Explain how you know.
b. Which species shows more variation in weight? Explain how you know.



Info Gap: Sea Turtles

Data Card 2

- The IQR for the loggerhead data is 45 pounds.
- The lightest weight in the loggerhead data is 150 pounds.
- The median for the loggerhead data is 130 pounds less than the median for the green turtle data.
- The heaviest weight in the loggerhead data is 295 pounds.

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