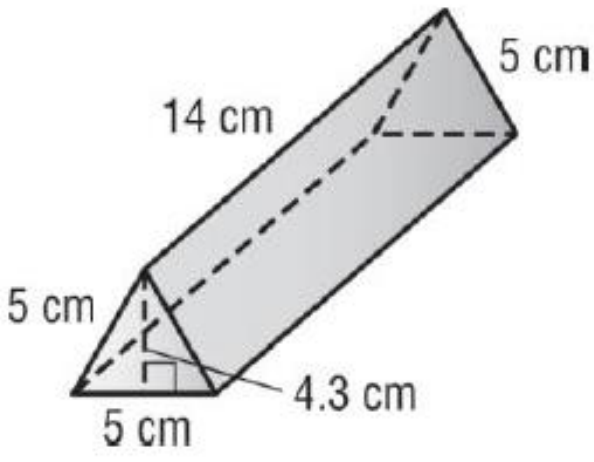
TREM 3 REVISION : WEEK 5 TO WEEK 10

GRADE 6 ASP SUB: MATH

LESSON 10.4: SURFACE AREA OF TRIANGULAR PRISMS

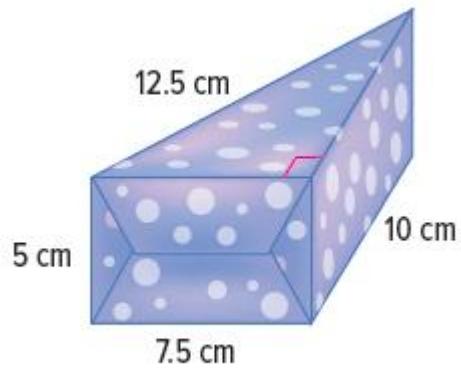
1. A box of snack crackers in the shape of a Triangular prism.What is the surface area of the box?



A	**231.50 cm^2**
B	**235 cm^2**
C	**230 cm^2**

2. A decorative gift box is in the shape of Triangular prism as shown. What is the Surface area of this box?

Answer:



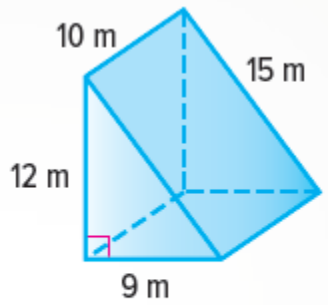
3. What is the least amount of fabric needed to make the tent?

Answer:

A	**$140ft^2$**
B	**$129ft^2$**
C	**$150ft^2$**

4. Determine if each statement is true or false

A triangular prism has the dimensions shown.
Determine if each statement is true or false.



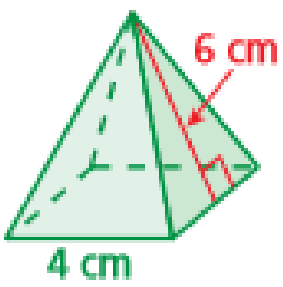
a. The combined areas of the bases is 54 m^2. ☐ True ☐ False

b. The areas of the rectangular faces are 90 square meters, 120 square meters and 180 square meters. ☐ True ☐ False

c. The surface area of the prism is 468 square meters. ☐ True ☐ False

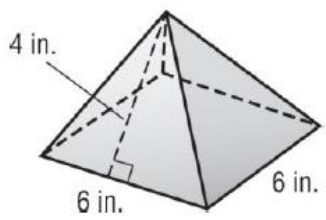
LESSON 10.5: SURFACE AREA OF PYRAMIDS

5. Find the surface area of this Square Pyramid.



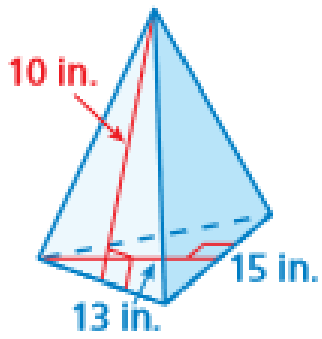
A	$60cm^2$
B	$61cm^2$
C	$64cm^2$

6. Mr. Statsko has a paper weight on his desk in the shape of a Square Pyramid. The dimensions of the Pyramid are shown. What is the surface area of the paper weight?



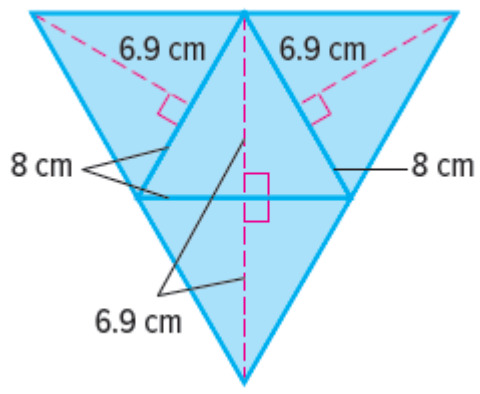
A	$84inch^2$
B	$82inch^2$
C	$80inch^2$

7. Find the surface area of this Triangular Pyramid.



A	250 $inch^2$
B	$292.50inch^2$
C	$240inch^2$

8. A pyramid puzzle has all faces that are equilateral triangles. Each triangle has side lengths of 8 centimeters. The slant height is 6.9 centimeters. Find the surface area of the puzzle.



A	$110.4cm^2$
B	$120cm^2$
C	$130.4cm^2$

LESSON 11.1 : MEAN

9. Calculate the mean for each set of data.

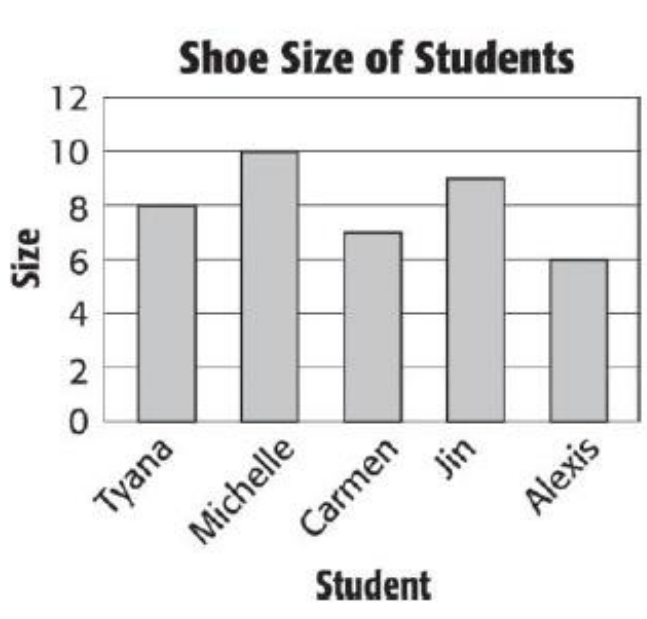
1.

Number of Candy Bars Sold	
Amber	CANDY ×11
Dalton	CANDY ×9
Juan	CANDY ×10
Shamika	CANDY ×13

Show your work here and choose the correct option:

A	**10**
B	**11**
C	**12**

2.



Show your work here and choose the correct option:

A	**8**
B	**9**
C	**10**

10. The dot plot shows the number of books Amal read each week of a reading challenge. Find the mean number of books she read.

A	**4**
B	**5**
C	**3**

11. Find the missing value of this data set.

The table shows the money raised by each type of booth at a craft sale. The mean amount raised per booth was AED 59. How much money was raised by the T-shirt booth? Explain how you found your answer.

Solve here:

Northside Craft Sale	
Booth	**Money Raised (AED)**
Artwork	58
Candies	47
Holiday decorations	54
Jewelry	70
Picture frames	45
T-shirts	?

A	**80**
B	**70**
C	**90**

12.The mean of a set of data is 42. Find the missing number in the data set.

(40 , 45 , 48 , ? , 47)

A	**30**
B	**31**
C	**32**

LESSON 11.2 :MEDIAN AND MODE

13. What is the median score of achieved by a student who recorded the following scores on 10 Math quizzes ?

68 , 55, 70 , 62 , 71 , 58 , 81 , 82 , 63 , 79

A	**68**
B	**71**
C	**69**

14. Find the mode of the following data set.

10 ,11 ,11, 12, 11, 12 ,13, 15 , 16 , 12 , 15

A	**11**
B	**12**
C	**11 and 12 both**

15. Describe the daily high temperatures using the measures of center.

Daily High Temperature (°C)							
42		43		37		35	
	41		34		41		

Answer:

Mean :

Median:

Mode:

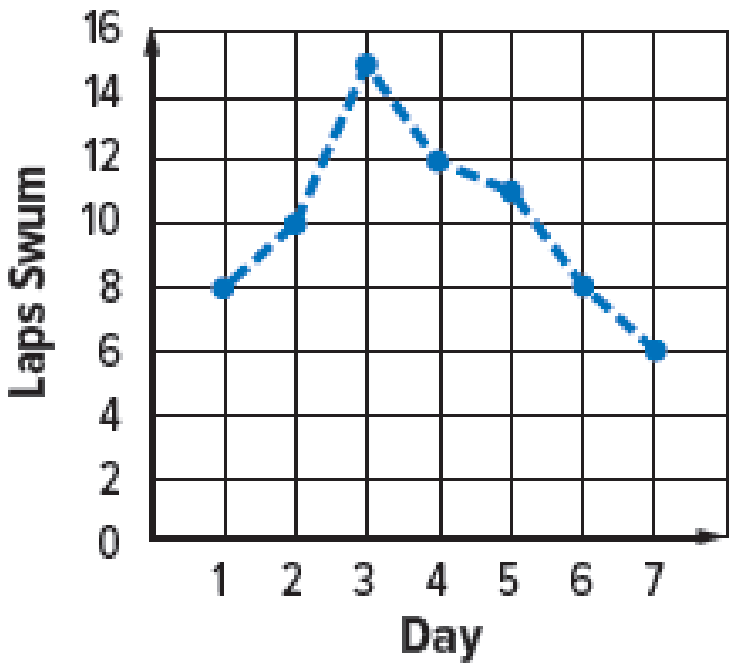
16. Find and compare Median and Mode of the data set.

Write the data set :

Median :

Mode :

Compare:



LESSON 11.3 :MEASURES OF VARIATION

17. Match the following with the correct option:

A	B
The average of a set of data	Mode
The difference of the greatest value and lowest value of a data set	Median
The value that occurs most frequently in a data set	IQR
The middle number of the data set in which the numbers are written in numerical order	Mean
Q3 – Q1	Range

18. Find the Range, Median , 1st quartile , 2nd quartile and IQR of this data set.

Number of Boxes of Popcorn Sold						
52	72	96	21	58	40	75

Range :

Median :

Q1:

Q3:

IQR:

19. Write the correct answer:

The table shows the number of golf courses in various US states.

a. Find the range of the data. _____

b. Find the median and the first and third quartiles.

_____

c. Find the interquartile range. _____

d. Identify any outliers in the data. _____

Number of Golf Courses in US States			
California	1,117	New York	954
Florida	1,465	North Carolina	650
Georgia	513	Ohio	893
Iowa	437	South Carolina	456
Michigan	1,038	Texas	1,018

LESSON 11.4 :MEAN ABSOLUTE DEVIATION

20. Calculate the Mean absolute deviation of the data set.

110 , 114 , 104 , 108 , 106

Data	Mean	Difference	Positive Value
		Sum:	
		Count:	
		Mean Absolute Deviation:	

The average of the "Positive Value" column

21. Find the Mean absolute deviation of the data set. Round off to nearest hundredth if necessary.

Calories per Serving			
47	35	46	56
40	42	52	30

Data	Mean	Difference	Positive Value
		Sum:	
		Count:	
		Mean Absolute Deviation:	

The average of the "Positive Value" column

LESSON 11.5: Appropriate Measures

22. Find the measure of center **(mean , mode or median**)that best represents the data. Justify your selection.

a) points on quizzes: 12 , 6 , 9 , 0 , 14 , 5 ,11 , 7

Best measure of center: Justification:

b) minutes spent practicing piano: 40 , 25 , 60 , 30 , 35 , 40

Best measure of center: Justification:

23. Answer the following:

The prices of some new athletic shoes are shown in the table.

Prices of Athletic Shoes (AED)		
51.95	47.50	46.50
48.50	52.95	78.95
	39.95	

b. Identify the outlier in the data set.

c. Determine how the outlier affects the mean, median, and mode of the data. _____

_____

_____

d. Tell which measure of center best describes the data with and without the outlier. _____

24. Identify the outlier of the data set.

Month	June	July	Aug.	Sept.	Oct.	Nov.
Rainfall (cm)	6.14	7.19	8.63	8.38	6.47	2.43

A	**2.43**
B	**6.14**
C	**6.47**

25.The table shows the greatest recorded weights of fish.Select the appropriate measure for this data.

A	**Mean**
B	**Mode**
C	**Median**

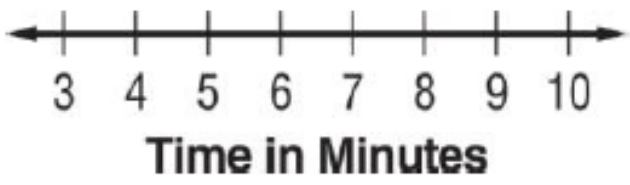
Record Fish Weights	
Fish	**Weight (lb)**
King Mackerel	90
Red Snapper	46.5
Snook	44
Swordfish	612.75
Tarpon	243
Yellowfin Grouper	34.38

LESSON 12.1: LINE PLOTS

26. The Johnson family kept a record of the length of telephone calls they made in one weekend.

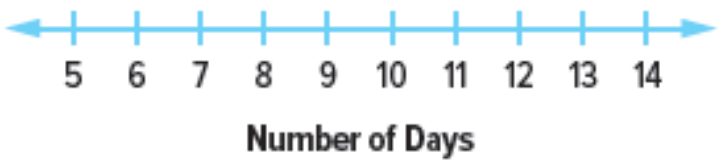
Make a Line plot of this data.

8 minutes	6 minutes	4 minutes	10 minutes	4 minutes	8 minutes
7 minutes	8 minutes	8 minutes	7 minutes	9 minutes	8 minutes
3 minutes	9 minutes	7 minutes	8 minutes	4 minutes	6 minutes
9 minutes	8 minutes	7 minutes	9 minutes	7 minutes	



27 . Make a Line plot for the set of data. Find median , mode , range and outlier of the data set.

Length of summer camps, in days:
7, 7, 12, 10, 5, 10, 5, 7, 10, 9, 7, 9, 6, 10, 5, 8, 7, 8



Median :

Mode:

Range :

Outlier:

28.

The table shows the number of days several students attended an exercise class last month. How many students attended the class

less than 15 days? _____

A	4
B	5
C	6

Number of Days			
16	21	18	6
19	15	8	11
16	4	20	22
12	19	21	9

LESSON 12.2: HISTOGRAMS

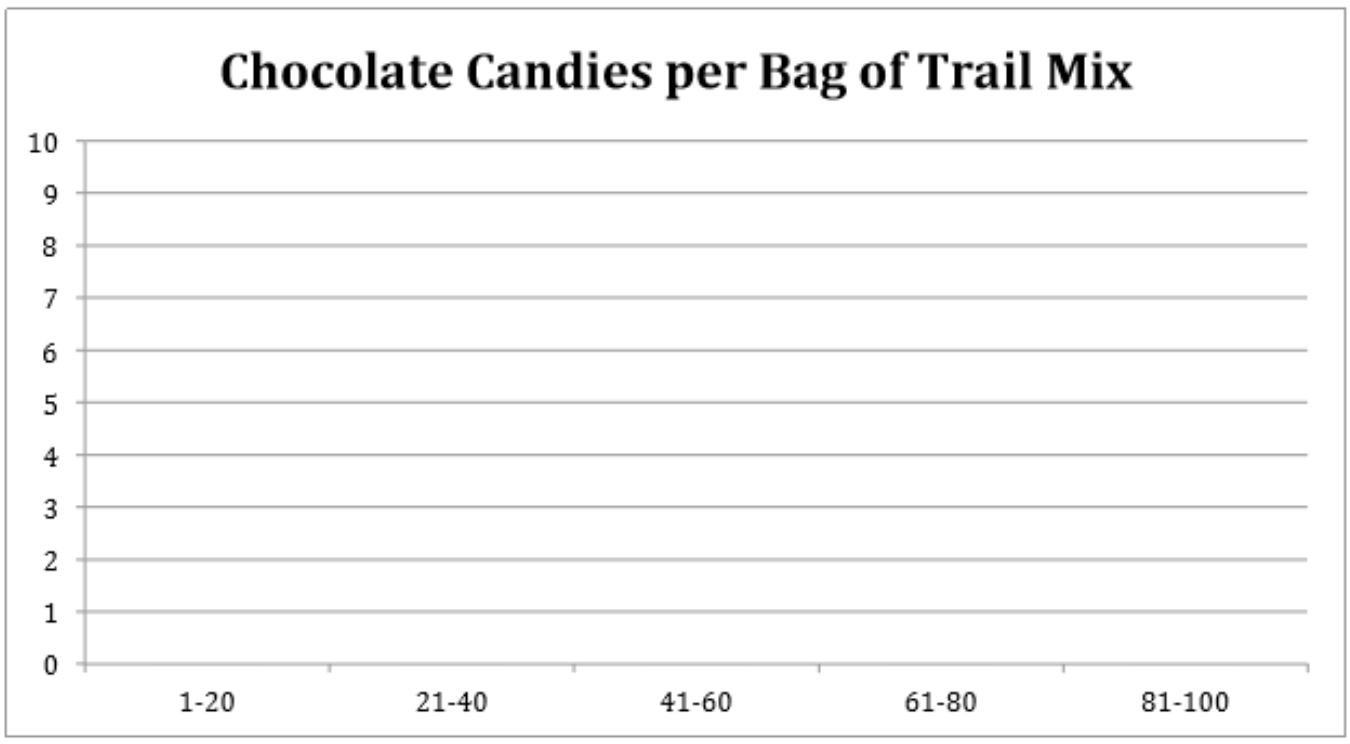
29 . Create a Histogram of a set o data.

Chocolate candies per bag of trail mix:

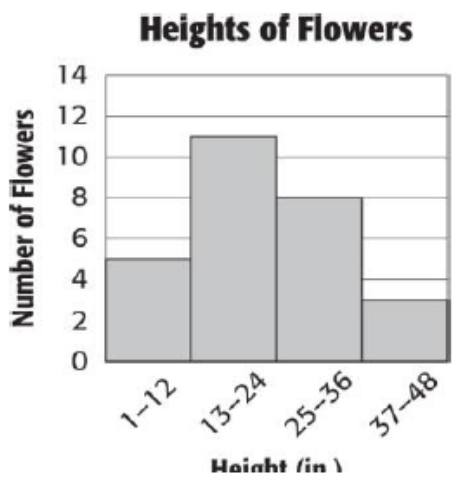
50	42	119	45	68	32	67	111	61	31	75
39	62	64	49	55	51	33	117	96	64	82

Frequency table:

Interval	# of values
1-20	
21-40	
41-60	
61-80	
81-100	



30. Analyze the Histogram.



a) Which number represents the least number of flowers? _____

b) Which interval has 5 flowers? _____

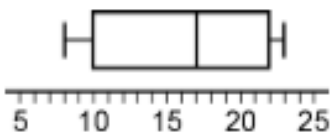
c)How many flowers are more than 24 inches tall?_____

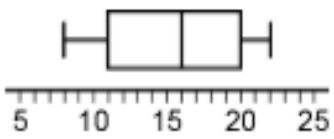
d) How many flowers are atleast 37 inches?

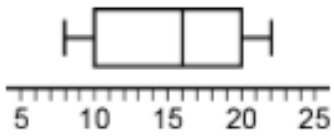
LESSON 12.3:BOX PLOTS

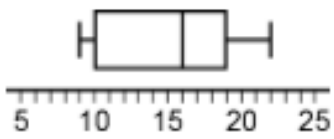
31. Which of the following is box and whisker graph for this data?

10, 8 , 9 , 16 ,19 , 15 , 20 , 16 , 21 , 22, 19

A) 

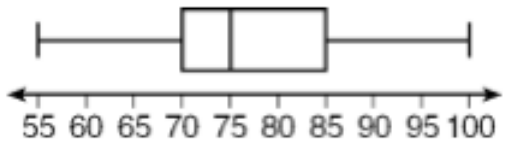
B) 

C) 

D) 

32. Analyze a Box plot.

The accompanying box-and-whisker plot represents the scores earned on a science test.



According to the diagram shown, what is the median score?

A) 75 B) 70 C) 85 D) 77

According to the diagram shown, what score represents the first quartile?

A) 55 B) 70 C) 100 D) 75

What statement is *not* true about the box and whisker plot shown?

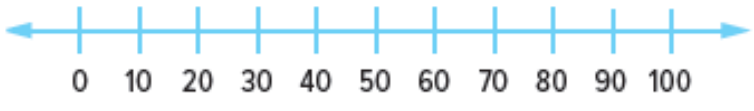
A) 75 represents the mean score
B) 100 represents the maximum score
C) 85 represents the 3rd quartile
D) 55 represents the minimum score

A score of an 85 on the box-and-whisker plot shown refers to

A) the third quartile
B) the maximum score
C) the median
D) the mean

33. Create a Box plot of the set of data.

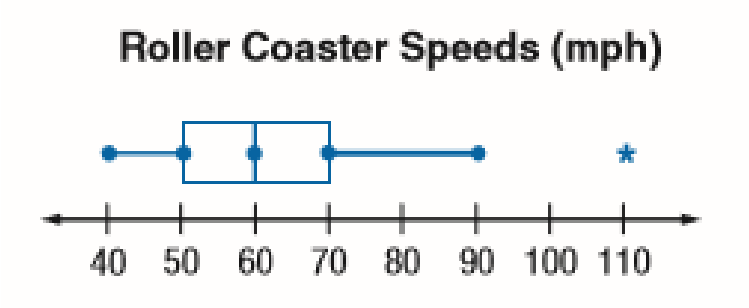
Identify Structure Find the median, first and third quartiles, and the interquartile range for the set of data in the table. Create a box plot of the data.



Words Typed Per Minute		
80	42	65
72	63	81
67	73	40
51	68	59
77	55	78

LESSON 12.4: shape of data distributions

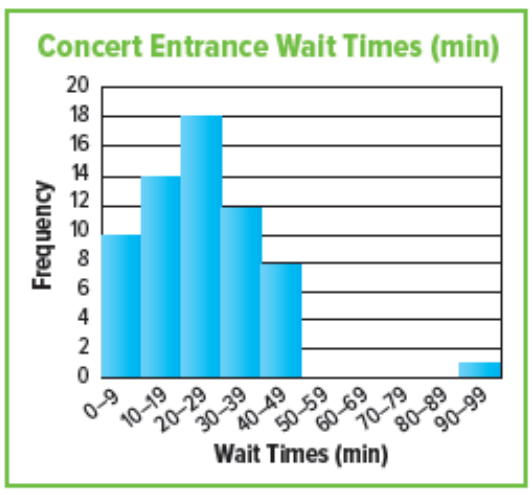
34. Refer to the Box plot below.



Which of the following statement is false?

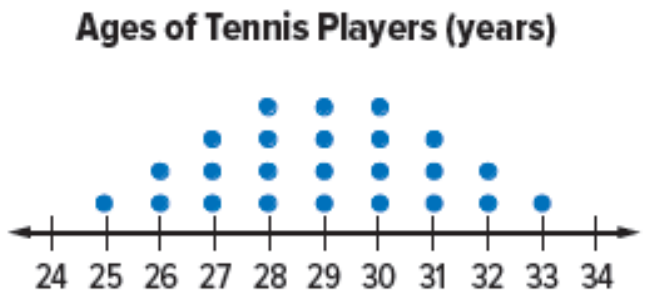
A. The distribution is symmetric.
B. The distribution is not symmetric.
C. The distribution has an outlier.
D. The distribution has a gap of data.

35.Use clusters , gaps , peaks , outlier and symmetry to describe the shape of the distributions:



Answer :

36. Choose the appropriate measure to describe the center and spread of the distribution.

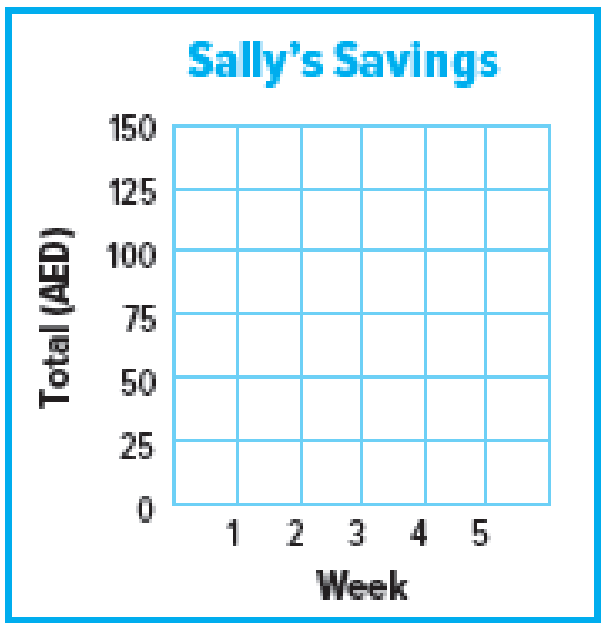


A	**Mean , MAD**
B	**Mode**
C	**Median**

LESSON 12.5: Interpret Line graphs

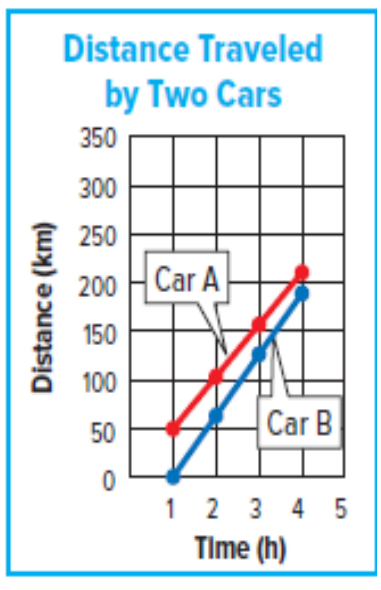
37. Make a Line graph of the data.

Sally's Savings	
Week	Total Amount (AED)
1	50
2	54
3	75
4	98
5	100



38. Interpret the Line graph.

The graph shows the distance traveled by two cars on the same freeway headed in the same direction.



a. Predict the distance traveled by Car A after 5 hours.

_____

b. Predict the distance traveled by Car B after 5 hours.

_____

c. How many kilometers do you think Car A will have traveled after 8 hours?

_____

d. Based on the graph, after how many hours will Car B have traveled about 360 kilometers? _____

e. Based on the graph, which car will reach a distance of 500 kilometers first? Explain your reasoning. _____

39.

Use the line graph at the right.

a. Between which years did the winning time change the most?

Explain your reasoning. _____

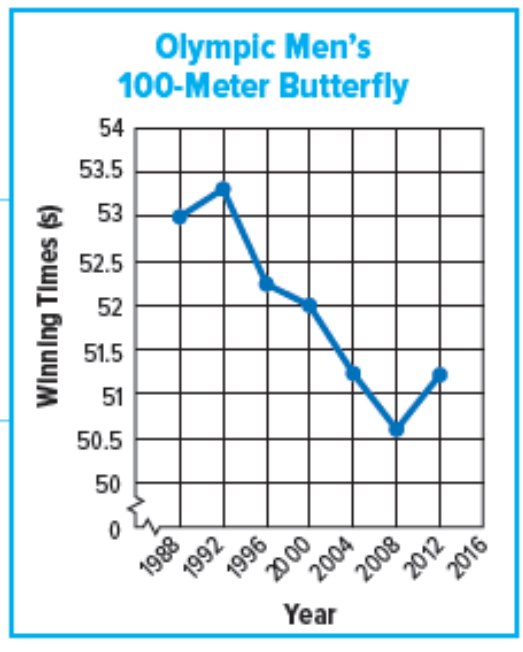
_____

b. Make a prediction of the winning time in the 2020 Olympics.

Explain your reasoning. _____

_____

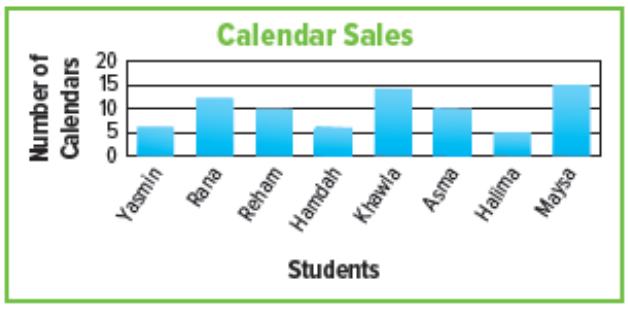
_____

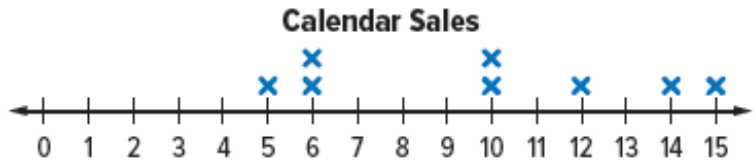


LESSON 12.6: Select an appropriate display

40. Select the appropriate measure.

Which display makes it easier to determine the greatest number of calendars sold? Justify your reasoning.

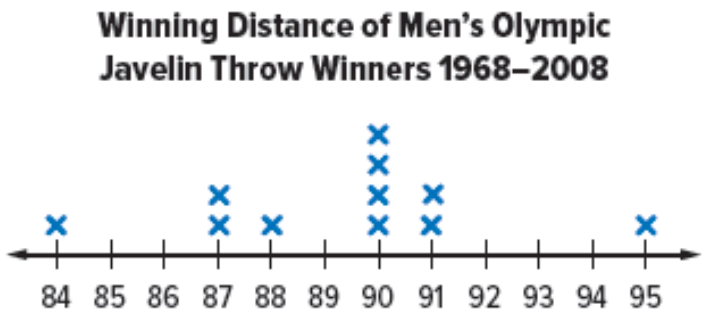


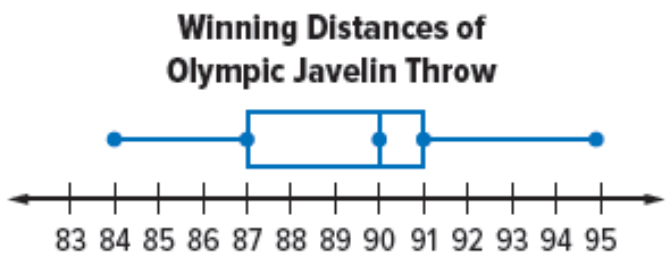


A	**Bargraph**
B	**Line plot**

41.

Which display makes it easier to see the median distance? Justify your reasoning.





A	**Line plot**
B	**Box Plot**

Justification:

42.

The table shows the heights of 15 different plants. Complete each statement with the most appropriate type of data display.

Heights of Plants (cm)				
24	26	22	22	23
24	25	24	23	23
18	26	25	22	24

a. A [ ] would be most appropriate to show the data divided into equal intervals.

b. A [ ] would be most appropriate to show how many times each height occurs.

c. A [ ] would be most appropriate to show the median and spread of the data.

43.

Match each situation to the type of display that would best represent it.

the favorite subject of the students in Mrs. Muna's homeroom [ ]

the weight a baby gains in one year [ ]

the number of hits Obaid got in each game this baseball season [ ]

the number of each type of sandwich a deli sells during lunch [ ]

bar graph
histogram
line graph
line plot

ALL THE BEST