Name: Answers

Statistics Test

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Matching: Match each word on the left to the proper definition on the right.

Choice	Word	Definition
C	Mean	A. The difference between the largest and smallest values in a data set.
E	Outlier	B. A way of graphically representing your data set.
D	Median	C. The average of all the values in your data set
G	Mode	D. The value located in the middle of a data set when the numbers are placed in ascending order.
A	Range	E. This is a value that is significantly higher or lower than the majority of your data set.
B	Bar Graph	F. This is a method of gathering information.
F	Survey	G. This is the number or numbers that occur most frequently in a data set.

Calculations: For each of the following data sets calculate the mean, median, mode, and range.

12	52	43	27	9	22	8	64	31
8	9	12	22	27	31	43	52	64

Range: $64 - 8 = 56$

Mode: None

Mean: $\frac{268}{9} = 29.\overline{7}$

Median: 27

132	123	123	321	312	123	213	213	312	123
312	213	213	312	321	123	213	123	312	321

123, 123, 123, 123, 123, 123, 132, 213, 213, 213, 213, 213, 312, 312, 312, 312, 312, 321, 321, 321

Range: $321 - 123 = 198$

Mode: 123

Mean: $\frac{4458}{20} = 222.9$

Median: 213

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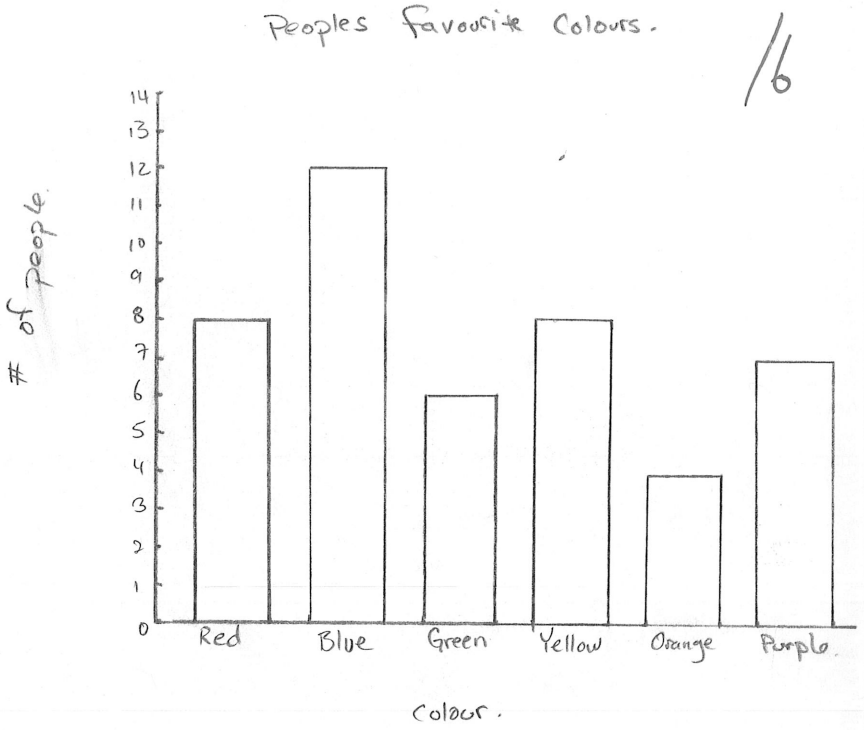
Statistics Test

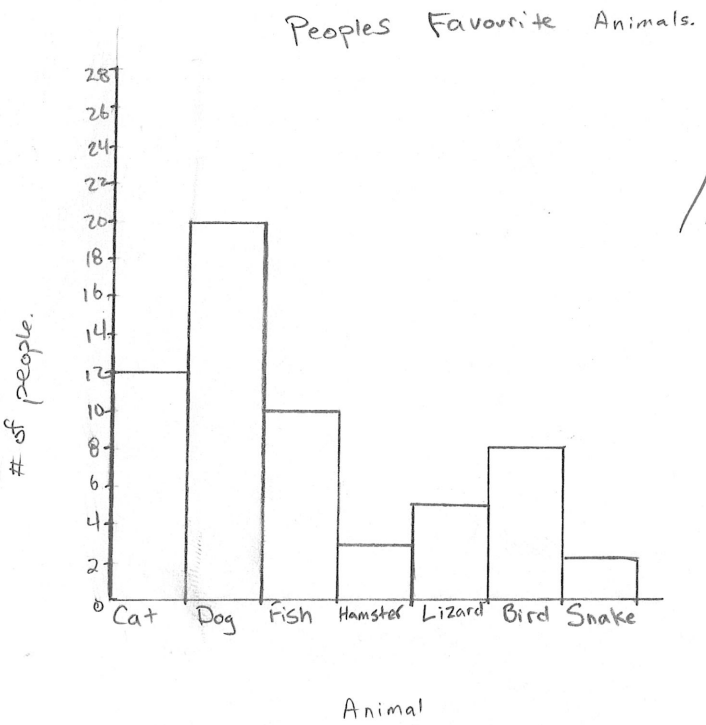
Bar Graphs:

Using each of the following sets of data, create a bar graph that will accurately represent the information. Use a Ruler! and colour in the graphs if possible. ***Neatness counts!!***

Favorite Colour	Number of People
Red	8
Blue	12
Green	6
Yellow	8
Orange	4
Purple	7



Favorite Pet Animal	Number of People
Cat	12
Dog	20
Fish	10
Hamster	3
Lizard	5
Bird	8
Snake	2



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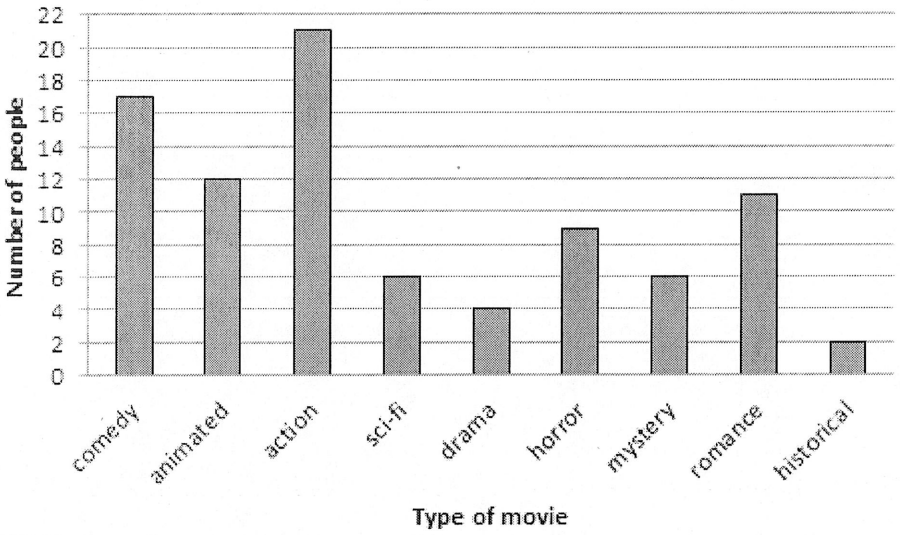
Statistics Test

Look at each of the following graphs, and fill out the tables provided:

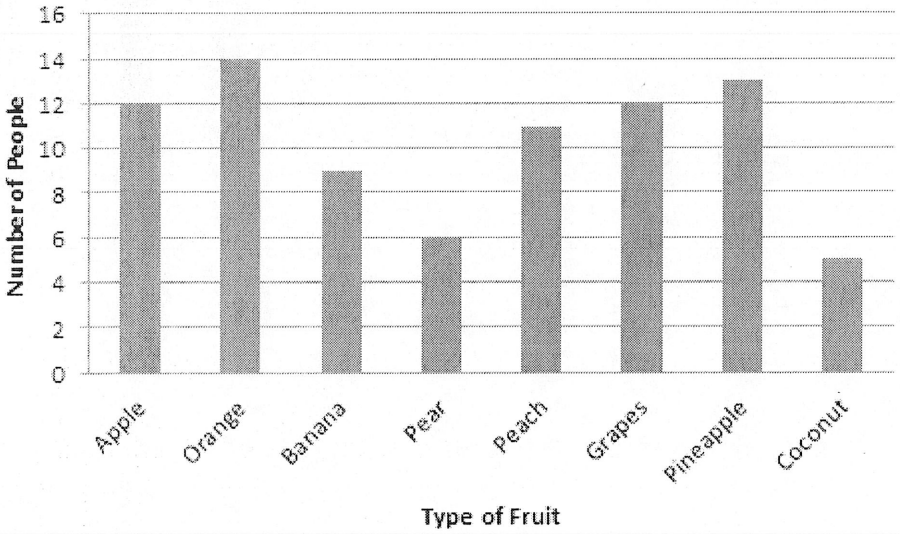


Type of movie	# of people.
Comedy	17
animated	12
action	21
Sci-Fi	6
Drama	4
Horror	9
Mystery	6
Romance	11
Historical	2

1/3

1/1 1. What is the least popular type of movie?
Historical

1/1 2. What is the most popular type of movie?
Action



Type of fruit	# of people.
Apple	12
Orange	14
Banana	9
Pear	6
Peach	11
Grapes	12
Pineapple	13
Coconut	5

1/3

1/1 1. What two types of fruit have the same amount of likes?
Apples & Grapes

1/1 2. How many people participated in this study?
82

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Statistics Test

Outliers: Read each situation carefully and **explain why** you should or should not keep the outlier in the data set.

1. A restaurant owner generally makes $2500 during the week. Every Saturday though he is able to make $5700. Should you keep the $5700 value?

   Yes, this is a weekly occurrence that can be explained by increased customers on the weekend.

2. Dean is part of the archery club at school. Over the last 9 weeks he consistently shoots between 44 and 50 points. Last night he strained his arm bailing hay, and shot a 32 at practice the next day. Should he keep that score in his average?

   No, his lower score can be explained by the fact that he is injured.

3. Last week in health class, the grade 8 class was calculating the mean weight of the class and found that it was 115lbs. This week, a new kid joined the class and the average is now 125lbs. Should you keep the new students weight when calculating the average?

   Yes, the student is now a part of the class, so the average should change.