Continuous and Discrete Data

Name: _____

Data is **continuous** if all numbers between data values are possible. Otherwise, the data is **discrete**. Non-numerical data is always discrete.

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1. Is the data discrete or continuous?

a) Shoe sizes: 5 5 6 $6\frac{1}{2}$ 7 7 7 8 $8\frac{1}{2}$

Is size $6\frac{1}{4}$ possible? No The data is discrete.

b) Length of pencils (cm): 8 3 12 17.1 13.4 19 18.6

Is length 8.5 cm possible? 18.7 cm? _____ The data is _____.

c) Number of games won by contestants: 7 6 8 12 4 0 3

Can there be half a _____ ? The data is _____.

d) Distance Jenn runs each day (in km): 15 15 20 22 22 25

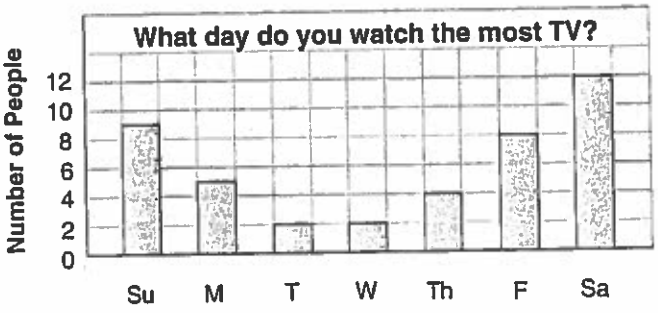
Can there be half a _____ ? The data is _____.

e) Number of runners Jenn sees every day? 7 14 16 8 12 14

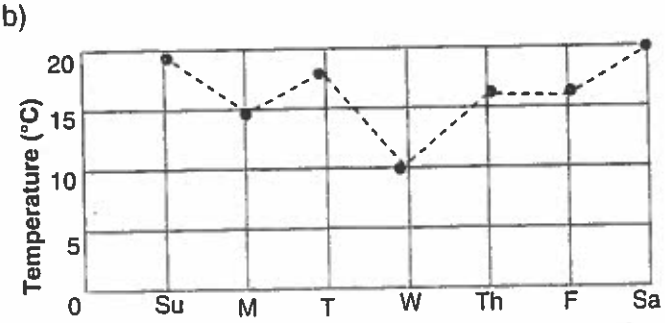
Can there be half a _____ ? The data is _____.

2. Decide whether the data on each axis is discrete or continuous. Explain your answer.

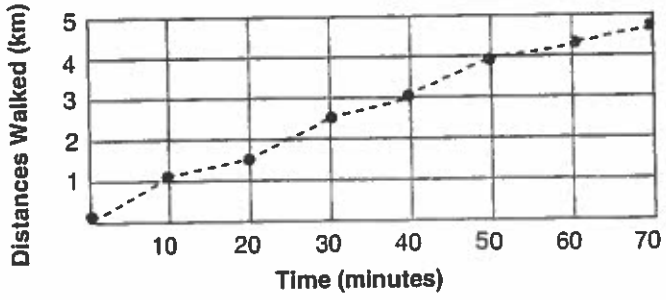
a)



b)

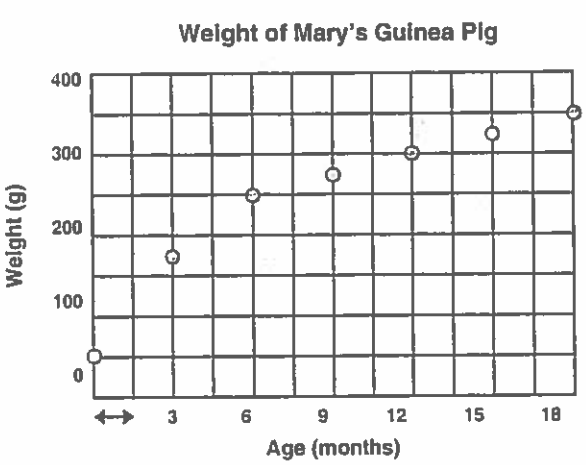


c)



Choosing and Interpreting Graphs

1.



a) How many months does the interval shown by the arrow represent?

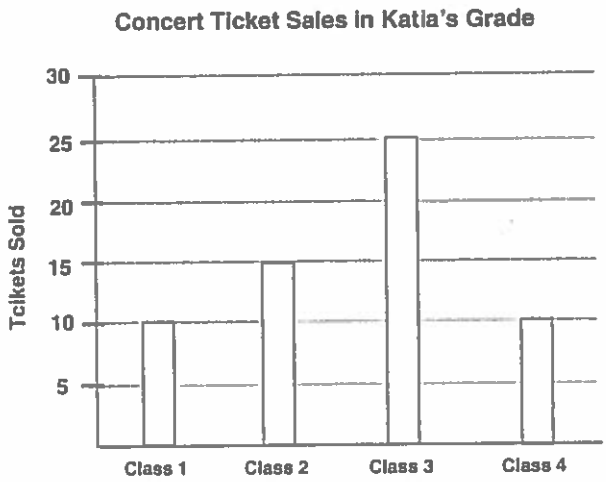
b) How many weeks does the interval represent?

c) Describe the trend you see in the graph.

d) The guinea pig was born at the beginning of January. In which month did it weigh 250 g?

e) Between which months did it grow the fastest?

2.

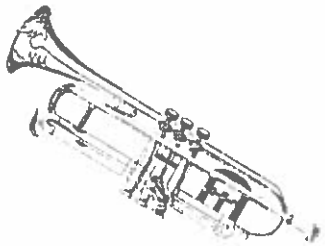


a) How many tickets did Katia's grade sell altogether?

b) On average, how many tickets did each class sell?

c) $\frac{2}{3}$ of the tickets sold were adult tickets.

How many adult tickets were sold?



d) Adult tickets sell for $5.00 and children's tickets sell for $2.00.

Calculate the total value of the tickets sold.

e) The money from the school concert is going toward a grade-wide trip. The trip costs $300.

i) How much more money is needed?

ii) How many adult tickets would have to be sold to cover the remaining cost?