1 Which statement matches this inequality? $10 < t \leq 20$

t lies between 10 and 20	
t lies between 10 and 20, including 20	
t lies between 10 and 20, including 10	
t lies between 10 and 20, including 10 and 20	

2 Tommy is recording the times it takes people to complete a race.

He wants to put the data into a table.

This is the table he makes to record the results.

Time taken	Frequency
0 to 1 minute	
2 minutes to 3 minutes	
3 minutes to 4 minutes	
4 minutes to 5 minutes	

a) Suggest two times that would be difficult to put into this table.

b) What advice might you give Tommy on how to change his table?

3 Here are the heights of 20 plants recorded to 1 decimal place.

15.6 cm	25.4 cm	13.9 cm	12.8 cm	31.1 cm
8.6 cm	21.6 cm	20.8 cm	30.0 cm	22.0 cm
47.1 cm	43.5 cm	27.6 cm	9.5 cm	28.0 cm
20.0 cm	47.9 cm	32.5 cm	4.3 cm	17.0 cm

a) Complete the table.

Height, h (cm)	Tally	Frequency
$0 < h \leq 10$		
$10 < h \leq 20$		
$20 < h \leq 30$		
$30 < h \leq 40$		
$40 < h \leq 50$		

b) Use the table to work out how many plants were taller than 20 cm.

c) Why do you think intervals of width 10 were chosen and not intervals of width 3?

d) Which interval has the highest frequency?

4 The table shows the time of the first goal in 100 football matches.

Time of first goal, t (minutes)	Number of matches
$0 < t \leq 15$	3
$15 < t \leq 30$	15
$30 < t \leq 45$	27
$45 < t \leq 60$	32
$60 < t \leq 75$	14
$75 < t \leq 90$	9

a) In how many matches was the first goal scored between 15 and 30 minutes, including 30 minutes?

b) The first goal in one of these matches was scored after exactly 75 minutes.
Which interval does this goal appear in?

c) In how many matches was the first goal scored in less than or equal to 45 minutes?

d) Is it possible to work out in how many matches the first goal was scored in the 30th minute?
Explain your answer.

e) Is this statement true or false?
20% of the first goals are scored in the last third of a football match.

5 The table shows the amount of time taken to complete a walk.

Time taken, t (hours)	Frequency
$2 < t \leq 4$	15
$4 < t \leq 6$	26
$6 < t \leq 8$	38
$8 < t \leq 10$	40

a) What percentage of people took more than 6 hours?

b) Estimate how many people took between 5 and 8 hours.
Explain your reasoning.

c) The longest time anyone took was 9 hours and 18 minutes.
Estimate the range of the data.