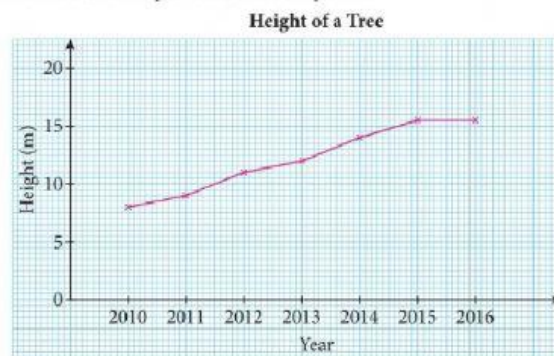


1. A botanist studies the height of a tree in a tropical rainforest. The line graph shows the height of the tree over a period of seven years.



- (a) How tall was this tree initially?  
 (b) What is the increase in height of the tree over a period of seven years?  
 (c) In which year will the height of the tree be 12 m?  
 (d) State an inference based on the line graph given.  
 (e) Based on the trend of the line graph, predict the height of the tree in 2017.

**Answer:**

a)

b)

c)

d) The tree has nearly  growth rate from 2010 to 2015 or there is  in height from 2015 to 2016

e)

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2. The stem-and-leaf plot shows the diameters of axles manufactured by a machine.

Diameters of Axles	
Stem	Leaf
24	5 6 6 8
25	0 1 1 2 3 6
26	0 0 0 1 3 3 4 5 8 9
27	3 4 4 5 7 8 8
28	2 3 6

Key: 24 | 5 means 24.5 mm.



- Determine the total number of axles manufactured.
- Find the largest and the smallest diameters of the axles manufactured.
- A mechanic notices that he has to reduce the axles with diameters exceeding 27.5 mm so that the axles can fit into wheels. Calculate the percentage of axles that need to have their diameters reduced.
- State an inference based on the distribution of the diameters of axles in this stem-and-leaf plot.

a)

b) Largest diameter:   
Smallest diameter:

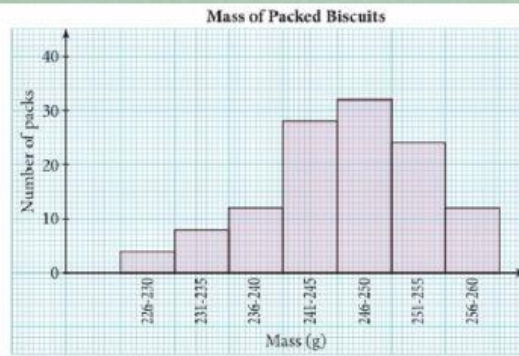
c)

d) The most of the diameter range from  to

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3.



A quality control supervisor wants to determine whether the batch of biscuits produced by the packaging department follows the specifications of the standard mass. The histogram shows the mass of packed biscuits in a few sample tests.

- How many packs of biscuits are tested in the sample?
- How many packs of biscuits have a mass from 236 g to 240 g?
- Based on the specifications, if 75% of the sample have mass from 241 g to 260 g, then the batch of biscuits produced would be packaged and sent for shipment. Does this batch of biscuits produced satisfy the specifications? Show your calculations. *(Just Give your final answer)*

**Answer :**

- a)
- b)
- c)

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