



## Problem of the Week

### Problem B

#### Measuring Feet - A Great Feat!

While reading an article in Teen Feat Magazine, Sundip learned that the mean (average) length of an 11-year-old's foot is 22.9 cm. He wondered how many of his 11-year-old friends had "average" feet. Here is the information of the foot lengths, in cm, that he gathered from himself and 11 of his friends:

19.1, 23.3, 21.7, 24.3, 22.1, 22.4, 20.7, 21.9, 22.5, 24.1, 26.4, 24.7

- (a) Complete the frequency table below to reveal the number of students with foot lengths within each interval.

Foot Length	Tally	Frequency	Relative Frequency
18.0 - 19.9			
20.0 - 21.9			
22.0 - 23.9			
24.0 - 25.9			
26.0 - 27.9			



- (b) What is the mean (average) foot length for Sundip and his friends? How does it compare to the average for 11-year-olds?
- (c) Does the information in the table reveal any similarities or differences among the students as to foot length?
- (d) Sundip's article also stated that fifty years ago, the average foot length an 11-year-old was about 21.9 cm. How do his friends' sizes compare to those of fifty years ago?