STA301 Assignment 1 Solution - Fall 2026

STA301 Statistics and Probability | Assignment 1 (Lectures 01-09) | Marks 15

Question 1: Stem-and-Leaf Display of Patients' Ages

Ages in ascending order: 18, 26, 27, 30, 31, 33, 35, 38, 49, 52.

Stem	Leaf
1	8
2	6 7
3	0 1 3 5 8
4	9
5	2

Key: 1 | 8 = 18 years.

Question 2: Harmonic Mean of the Rider's Average Speed

Speeds: 20, 30, 40, 50, 60 km/h. Number of routes (n) = 5.

Formula: H.M. = n / (1/x1 + 1/x2 + 1/x3 + 1/x4 + 1/x5)

Sum of reciprocals = 1/20 + 1/30 + 1/40 + 1/50 + 1/60 = 0.05 + 0.0333 + 0.025 + 0.02 + 0.0167 = 0.145

H.M. = 5 / 0.145 = 34.48 km/h

Average speed = 34.48 km/h

Question 3: Midpoint (x) and Relative Frequency

Class Limits	Frequency (f)	Midpoint (x)	Relative Frequency
10-14	2	12	0.0833
15-19	4	17	0.1667
20-24	6	22	0.2500
25-29	8	27	0.3333
30-34	3	32	0.1250
35-39	1	37	0.0417
TOTAL	24	-	1.0000