Exercise 14E

Question 14:
Mean of 11 numbers = 42
Total sum of 11 numbers = 42x11 = 462
Mean of the first 6 numbers = 37
Total sum of first 6 numbers = 37x6 = 222
Mean of the last 6 numbers = 46
Total sum of last 6 numbers = 6x46 = 276
∴ The 6th number= 276 + 222 - 462
= 498 - 462 = 36
∴ The 6th number = 36

Question 15:
Mean weight of 25 students = 52kg
Total weight of 25 students = 52x25 kg=1300 kg
Mean of the first 13 students = 48 kg
Total weight of the first 13 students = 48x13 kg = 624kg
Mean of the last 13 students = 55 kg
Total weight of the last 13 students = 55x13 kg = 715 kg
∴ The weight of 13th student
= Total weight of the first 13 students + Total weight of the last 13
students - Total weight of 25 students
= 624+715-1300 kg
= 39 kg.
Therefore, the weight of 13th student is 39 kg.

Question 16:
Mean score of 25 observations = 80
Total score of 25 observations = 80x25 = 2000
Mean score of 55 observations = 60
Total score of 55 observations = 60x55 =3300
Total no. of observations = 25+55 =80 observations
∴ Total score = 2000+3300 = 5300
∴ Mean score = 5300/80 = 66.25

Question 17:
Average marks of 4 subjects = 50
Total marks of 4 subjects = 50x4 = 200
∴ 36 + 44 + 75 + x = 200
⇒ 155 + x = 200
⇒ x = 200 - 155 = 45
∴ The value of x = 45

********** END *********