EXERCISE 34(A)

1. Find the mean of:
(i) 7, 10, 4 and 17
(ii) 12, 9, 6, 11 and 17
(iii) 3, 1, 5, 4, 4 and 7
(iv) 7, 5, 0, 3, 0, 6, 0, 9, 1 and 4
(v) 2.1, 4.5, 5.2, 7.1 and 9.3
Solution:
(i) Given
Numbers are 7, 10, 4 and 17
The mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (7 + 10 + 4 + 17) / 4
We get,
= 38 / 4
= 9.5
Hence, mean = 9.5
(ii) Given
Numbers are 12, 9, 6, 11 and 17
The mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (12 + 9 + 6 + 11 + 17) / 5
We get,
= 55 / 5
= 11
Hence, mean = 11
(iii) Given
Numbers are 3, 1, 5, 4, 4 and 7
The mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (3 + 1 + 5 + 4 + 4 + 7) / 6
We get,
= 24 / 6
= 4
Hence, mean = 4
(iv) Given
Numbers are 7, 5, 0, 3, 0, 6, 0, 9, 1 and 4
The mean can be calculated as below
Mean = Sum of numbers / Number of numbers

= (7 + 5 + 0 + 3 + 0 + 6 + 0 + 9 + 1 + 4) / 10
We get,
= 35 / 10
= 3.5
Hence, mean = 3.5
(v) Given
Numbers are 2.1, 4.5, 5.2, 7.1 and 9.3
The mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (2.1 + 4.5 + 5.2 + 7.1 + 9.3) / 5
We get,
= 28.2 / 5
= 5.64
Hence, mean = 5.64

2. Find the mean of:
(i) first eight natural numbers
(ii) first six even natural numbers
(iii) first five odd natural numbers
(iv) all prime numbers upto 30
(v) all prime numbers between 20 and 40
Solution:
(i) The first eight natural numbers are as follows:
1, 2, 3, 4, 5, 6, 7 and 8
Hence, the mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8) / 8
We get,
= 36 / 8
= 4.5
Therefore, mean = 4.5
(ii) The first six even natural numbers are as follows:
2, 4, 6, 8, 10 and 12
Hence, the mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (2 + 4 + 6 + 8 + 10 + 12) / 6
We get,
= 42 / 6
= 7

Therefore, mean = 7
(iii) First five odd natural numbers are as follows:
1, 3, 5, 7 and 9
Hence, the mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (1 + 3 + 5 + 7 + 9) / 5
We get,
= 25 / 5
= 5
Therefore, mean = 5
(iv) Prime numbers till 30 are as follows:
2, 3, 5, 7, 11, 13, 17, 19, 23 and 29
Hence, the mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (2 + 3 + 5 + 7 + 11 + 13 + 17 + 19 + 23 + 29) / 10
We get,
= 129 / 10
= 12.9
Therefore, mean = 12.9
(v) All prime numbers between 20 and 40 are as follows:
23, 29, 31 and 37
Hence, the mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (23 + 29 + 31 + 37) / 4
We get,
= 120 / 4
= 30
Therefore, mean = 30

3. Height (in cm) of 7 boys of a locality are 144 cm, 155 cm, 168 cm, 163 cm, 167 cm, 151 cm and 158 cm. Find their mean height.
Solution:
Given
Height of 7 boys of a locality = 144 cm, 155 cm, 168 cm, 163 cm, 167 cm, 151 cm and 158 cm
Hence, the mean can be calculated as follows:
Mean = Sum of height / Number of boys
= (144 + 155 + 168 + 163 + 167 + 151 + 158) / 7
We get,

= 1106 / 7
= 158 cm
Therefore, mean height = 158 cm

4. Find the mean of 35, 44, 31, 57, 38, 29, 26, 36, 41 and 43.
Solution:
Given
Numbers are 35, 44, 31, 57, 38, 29, 26, 36, 41 and 43
Hence, the mean can be calculated as below
Mean = Sum of numbers / Number of numbers
= (35 + 44 + 31 + 57 + 38 + 29 + 26 + 36 + 41 + 43) / 10
We get,
= 375 / 10
= 37.5
Therefore, mean = 37.5

5. The mean of 18, 28, x, 32, 14 and 36 is 23. Find the value of x. Sum of data
Solution:
Given
Mean of 18, 28, x, 32, 14 and 36 = 23
Hence, the value of x can be calculated as below
Mean = (Sum of numbers) / (Number of numbers)
23 = (18 + 28 + x + 32 + 14 + 36) / 6
On further calculation, we get
23 × 6 = x + 128
138 = x + 128
x = 138 – 128
We get,
x = 10
Hence, the value of x is 10

6. If the mean of x, x + 2, x + 4, x + 6 and x + 8 is13, find the value of x. Sum of data
Solution:
Given
Mean of x, x + 2, x + 4, x + 6 and x + 8 is 13
Hence, the value of x can be calculated as below
Mean = (Sum of numbers) / (Number of numbers)
13 = [x + (x + 2) + (x + 4) + (x + 6) + (x + 8)] / 5
On further calculation, we get

$13 \times 5 = 5x + 20$
$65 = 5x + 20$
$5x = 65 - 20$
$5x = 45$
We get,
$x = 9$
Hence, the value of x is 9