Date __/__/____ EXERCISE - 3M

Saathi

Q.A. Estimate the following sums to the nearest tens: Page: 43, 44

(1) 59 + 23

Solution:

Rounding off to nearest tens, we have

59 → 60 [As 9 > 5 ⇒ 9 → 10 and 59 → 60]

23 → 20 [As 3 < 5 ⇒ 3 → 0 ⇒ 23 → 20]

∴ Estimated sum = 60 + 20 = 80 Ans.

(3) 19 + 85

Solution:

Rounding off to nearest tens, we have

19 → 20 [As 9 > 5 ⇒ 9 → 10 ⇒ 19 → 20]

85 → 90 [As 5 = 5 ⇒ 5 → 10 ⇒ 85 → 90]

19 + 85 → 20 + 90 = 110

∴ Estimated sum = 110 Ans

Q.B. Estimate the following sums to the nearest hundreds. Also compare the sums with the actual sums.

(1) 173 + 58

Solution:

Rounding off to nearest hundreds, we have

173 → 200 [As 7 > 5 ⇒ 73 → 100 ⇒ 173 → 200]

58 → 100 [As 5 = 5 ⇒ 58 → 100]

∴ 173 + 58 → 200 + 100 = 300

∴ Estimated sum = 300 Ans(i)

Actual sum = 173 + 58 = 231

∵ 300 > 231

⇒ Estimated sum > Actual sum Ans(ii)

Q.B. (3) 287 + 1891 + 980 + 437

Solution: Rounding off to nearest 100, we have

287 → 300 [As 87 > 75 ⇒ 87 → 100 ⇒ 287 → 300]

1891 → 1900 [As 91 > 75 ⇒ 91 → 100 ⇒ 1891 → 1900]

980 → 1000 [As 80 > 75 ⇒ 80 → 100 ⇒ 980 → 1000]

437 → 400 [As 37 < 75 ⇒ 37 → 00 ⇒ 437 → 400]

∴ 287 + 1891 + 980 + 437 → 300 + 1900 + 1000 + 400

∴ Estimated sum = 3600 Ans(i)

Actual sum = 287 + 1891 + 980 + 437 = 3595

∵ 3600 > 3595

⇒ Estimated sum > Actual sum Ans(ii)

(5) 673 + 2804 + 5150

Solution:

Rounding off to nearest hundreds, we have

673 → 700 [As 73 > 75 ⇒ 73 → 100 ⇒ 673 → 700]

2804 → 2800 [As 04 < 75 ⇒ 04 → 00 ⇒ 804 → 800]

5150 → 5200 [As 50 = 50 ⇒ 50 → 100 ⇒ 150 → 200]

673 + 2804 + 5150 → 700 + 2800 + 5200

∴ Estimated sum = 8700 Ans(i)

Actual sum = 673 + 2804 + 5150 = 8627

∵ 8700 > 8627

⇒ Estimated sum > Actual sum Ans(ii)

Q.C. Estimate the following sums to the nearest thousands:

(1) 35,446 + 39,802

Solution:

Rounding off to nearest thousands, we have

35,446 → 35,000 [As 4 < 5 ⇒ 446 → 000 ⇒ 5446 → 5000]
39,802 → 40,000 [As 8 > 5 ⇒ 802 → 1000 ⇒ 39,802 → 40,000]
35,446 + 39,802 → 35,000 + 40,000 = 75,000
∴ Estimated sum = 75,000 Ans

(3) 21,397 + 27,807 + 42,505
Solution:
Rounding off to nearest thousands, we have
21,397 → 21,000 [As 3 < 5 ⇒ 397 → 000 ⇒ 1397 → 1000]
27,807 → 28,000 [As 8 > 5 ⇒ 807 → 1000 → 7807 → 8000]
42,505 → 43,000 [As 5 = 5 ⇒ 505 → 1000 → 2505 → 3000]
21,397 + 27,807 + 42,505 → 21,000 + 28,000 + 43,000
∴ Estimated sum = 92,000 Ans

Q.D. Make an estimate of the following. Compare your result with the actual difference:
(a) to the nearest tens (b) to the nearest hundreds
(1) 3521 − 613
Solution: Step-I
(a) Rounding off to nearest tens, we have
3521 → 3520 [As 1 < 5 ⇒ 1 → 0 ⇒ 21 → 20]
613 → 610 [As 3 < 5 ⇒ 3 → 0 ⇒ 13 → 10]
3521 − 613 → 3520 − 610 = 2910
∴ Estimated difference = 2910 Ans(i)
Actual difference = 3521 − 613 = 2908
∴ 2910 > 2908
⇒ Estimated difference > Actual difference Ans(ii)

Step-II
(b) Rounding off to nearest hundreds, we have
3521 → 3500 [As 2 < 5 ⇒ 21 → 00 ⇒ 521 → 500]
613 → 600 [As 1 < 5 ⇒ 13 → 00 ⇒ 613 → 600]
3521 − 613 = 3500 − 600 = 2900