EXERCISE 2(B)

Question 1.

Estimate the sum of each pair of numbers to the nearest ten :

(i) 67 and 44

(ii) 34 and 87

(iii) 23 and 66

(iv) 78 and 18

(v) 96 and 55

(vi) 76 and 62

(vii) 457 and 175

(viii) 474 and 173

(ix) 527 and 267

Solution:

(i) 67 and 44

67 to the nearest ten 70 and, 44 to the nearest ten = 40

∴ Required sum (70 + 40) = 110

(ii) 34 and 87

34 to the nearest ten = 30 and, 87 to the nearest ten = 90

∴ Required sum = (30 + 90) = 120

(iii) 23 and 66

23 to the nearest ten = 20 and, 66 to the nearest ten = 70

∴ Required sum = (20 + 70) = 90

(iv) 78 and 18

78 to the nearest ten = 80 and, 18 to the nearest ten = 20

∴ Required sum = (80 + 20) = 100

(v) 96 and 55

96 to the nearest ten = 100 and, 55 to the nearest ten = 60

∴ Required sum = (100 + 60) = 160

(vi) 76 and 62

76 to the nearest ten = 80 and, 62 to the nearest ten = 60

∴ Required sum = (80 + 60) = 140

(vii) 457 and 175

457 to the nearest ten = 460 and, 175 to the nearest ten = 180

∴ Required sum = (460 + 180) = 640

(viii) 474 and 173

474 to the nearest ten = 470 and, 173 to the nearest ten = 170

∴ Required sum = (470 + 170) = 640

(ix) 527 and 267

527 to the nearest ten = 530 and, 267 to the nearest ten = 270

∴ Required sum = (530 + 270) = 800

Question 2.

Estimate the sum of each pair of numbers to the nearest hundred :
(i) 336 and 782
(ii) 546 and 342
(iii) 270 and 495
(iv) 4280 and 5295
(v) 4230 and 2410
(vi) 30047 and 39287

Solution:

(i) 336 and 782
336 to the nearest hundred = 300 and, 782 to the nearest hundred = 800
∴ Required sum = (300 + 800) = 1100
(ii) 546 and 342 and, 342 to the nearest hundred = 300
∴ Required sum = (500 + 300) = 800
(iii) 270 and 495
270 to the nearest hundred = 300 and, 495 to the nearest hundred = 500
∴ Required sum = (300 + 500) = 800
(iv) 4280 and 5295
4280 to the nearest hundred = 4300 and, 5295 to the nearest hundred = 5300
∴ Required sum = (4300 + 5300) = 9600
(v) 4230 and 2410
4230 to the nearest hundred = 4200 and, 2410 to the nearest hundred = 2400
∴ Required number = (4200 + 2400) = 6600
(vi) 30047 and 39287
30047 to the nearest hundred = 30000 and, 39287 to the nearest hundred = 39300
∴ Required sum = (30000 + 39300) = 69, 300

Question 3.

Estimate the sum of the following pair of numbers to the nearest thousand:
(i) 53826 and 36455
(ii) 56802 and 22475

Solution:

(i) 53826 and 36455
53826 to the nearest hundred = 54000 and, 36455 to the nearest hundred = 36000
∴ Required sum = (54000 + 36000) = 90000
(ii) 56802 and 22475
56802 to the nearest thousand = 57000 and, 22475 to the nearest thousand = 22000
∴ Required sum = (57000 + 22000) = 79000

Question 4.

Estimate the following differences correct to nearest ten :
(i) 82 – 27
(ii) 96 – 36
(iii) 508 – 248

Solution:

(i) 82 – 27
82 to the nearest ten = 80 and, 27 to the nearest ten = 30
∴ Required difference = (80 - 30) = 50
(ii) 96 – 36
96 to the nearest ten = 100 and, 36 to the nearest ten = 40
∴ Required difference = (100 - 40) = 60
(iii) 508 – 248
508 to the nearest ten = 510 and, 248 to the nearest ten = 250
∴ Required difference = (510 - 250) = 260

Question 5.
Estimate each difference to the nearest hundred :
(i) 769 – 314
(ii) 856 – 687
(iii) 6352 – 2086
Solution:
(i) 769 – 314
769 to the nearest hundred = 800 and, 314 to the nearest hundred = 300
∴ Required difference = (800 - 300) = 500
(ii) 856 – 687
856 to the nearest hundred = 900 and, 687 to the nearest hundred = 700
∴ Required difference = (900 - 700) = 200
(iii) 6352 – 2086
6352 to the nearest hundred = 6400 and, 2086 to the nearest hundred = 2100
∴ Required difference = (6400 - 2100) = 4300

Question 6.
Estimate each difference to the nearest thousand:
(i) 45974 – 38766
(ii) 76003 – 48399
Solution:
(i) 45974 – 38766
45974 to the nearest thousand = 46000 and, 38760 to the nearest thousand = 39000
∴ Required difference = (46000 - 39000) = 7000
(ii) 76003 – 48399
76003 to the nearest thousand = 76000 and, 48399 to the nearest thousand = 48000
∴ Required difference = (76000 - 48000) = 28000

Question 7.
Estimate each of the following products by rounding of each number to the nearest ten :
(i) 49 x 52
(ii) 63 x 38
(iii) 27 x 54
(iv) 53 x 85

(v) 74 x 67
(vi) 25 x 33

Solution:

(i) 49 x 52
49 to the nearest ten = 50 and, 52 to the nearest ten = 50
∴ Required product = (50 x 50) = 2500
(ii) 63 x 38
63 ta the nearest ten = 60 and, 38 to the nearest ten = 40
∴ Required product = (60 x 40) = 2400
(iii) 27 x 54
27 to the nearest ten = 30 and, 54 to the nearest ten = 50
∴ Required product = (30 x 50) = 1500
(iv) 53 x 85
53 to the nearest ten = 50 and, 85 to the nearest ten = 90
∴ Required product = (50 x 90) = 4500
(v) 74 x 67
74 to the nearest ten = 70 and, 67 to the nearest ten = 70
∴ Required product = (70 x 70) = 4900
(vi) 25 x 33
25 to the nearest ten = 30 and, 33 to the nearest ten = 30
∴ Required product = (30 x 30) = 900

Question 8.

Estimate each of the following products by rounding off each number to the nearest hundred :
(i) 477 x 213
(ii) 624 x 236
(iii) 333 x 247
(iv) 537 x 283
(v) 382 x 127
(vi) 427 x 328

Solution:

(i) 477 x 213
477 to the nearest hundred = 500 and, 213 to the nearest hundred = 200
∴ Required product = (500 x 200) = 100000
(ii) 624 x 236
624 to the nearest hundred = 600 and, 236 to the nearest hundred = 200
∴ Required product = (600 x 200) = 120000
(iii) 333 x 247
333 to the nearest hundred = 300 and, 247 to the nearest hundred = 200
∴ Required product = (300 x 200) = 60000
(iv) 537 x 283
537 to the nearest hundred = 500 and, 283 to the nearest hundred = 300
∴

Required product = (500 x 300) = 150000
(v) 382 x 127
382 to the nearest hundred = 400 and, 127 to the nearest hundred = 100
∴ Required product = (400 x 100) = 40000
(vi) 427 x 328
472 to the nearest hundred = 500 and, 328 to the nearest hundred = 300
∴ Required product = (500 x 300) = 150000

Question 9.
Estimate each of the following products by rounding off the first number correct to nearest ten and the other number correct to nearest hundred :
(i) 28 x 287
(ii) 432 x 128
(iii) 48 x 165
(iv) 72 x 258
(v) 83 x 664
(vi) 44 x 250
Solution:
(i) 28 x 287
28 to the nearest ten = 30 and, 287 to the nearest hundred = 300
∴ Required product = (30 x 300) = 9000
(ii) 432 x 128
432 to the nearest ten = 430 and, 128 to the nearest hundred = 100
∴ Required product = (430 x 100) = 43000
(iii) 48 x 165
48 to the nearest ten = 50 and, 165 to the nearest hundred = 200
∴ Required product = (50 x 200) = 10000
(iv) 72 x 258
72 to the nearest ten = 70 and, 258 to the nearest hundred = 300
∴ Required product = (70 x 300) = 21000
(v) 83 x 664
83 to the nearest ten = 80 and, 664 to the nearest hundred = 700
∴ Required product = (80 x 700) = 56000
(vi) 44 x 250
44 to the nearest ten = 40 and, 250 to the nearest hundred = 300
∴ Required product = (40 x 300) = 12000

Question 10.
Estimate each of the following quotients by converting each number to the nearest ten :
(i) 87 ÷ 28
(ii) 84 ÷ 23
(iii) 77 ÷ 22
(iv) 198 ÷ 24

(v) 355 ÷ 26
(vi) 444 ÷ 42
(vii) 843 ÷ 33

Solution:

(i) 87 ÷ 28
(87 ÷ 28) is (approximately to the nearest 10) equal to 90 ÷ 30 = 3
(ii) 84 ÷ 23
84 ÷ 23 is (approximately to the nearest 10) equal to 80 ÷ 20 = 4
(iii) 77 ÷ 22
77 ÷ 22 is (approximately to the nearest 10) equal to 80 ÷ 20 = 4
(iv) 198 ÷ 24
198 ÷ 24 is (approximately to the nearest 10) equal to 200 ÷ 20 = 10
(v) 355 ÷ 26
355 ÷ 26 is (approximately to the nearest 10) equal to 360 ÷ 30 = 12
(vi) 444 ÷ 42
444 ÷ 42 is (approximately to the nearest 10) equal to 440 ÷ 40 = 11
(vii) 843 ÷ 33
843 ÷ 33 is (approximately to the nearest 10) equal to 840 ÷ 30 = 28