INTRODUCTION

Importance of calculation speed

Calculation speed plays a very important role in almost all the competitive exams – more so in MBA entrance exams. Some people have the natural ability to do calculations fast but, those of us who do not have good calculation speeds need not envy such people for their inborn talent. It is very easy to develop good calculation speed in a relatively short period of time. All it requires is taking care of one basic factor – that is spending a certain amount of time regularly practising calculations.

How does one improve calculation speed?

Spend just about 15 minutes a day over a three to six month period on calculation practice and you will find the difference in your calculation speed. The practice involves basic additions, subtractions, multiplications, percentage calculations, comparing fractions and calculating squares.

This practice does not need any material in the form of printed exercises or test papers. Take any figures that you can think of and work out the calculations (additions, subtractions, multiplications, etc.) mentally. What you should certainly try to ensure is that you are doing the calculations mentally wherever possible. Put away your calculators and avoid doing your calculations on paper to the extent possible.

What does this book consist of?

While you can always take figures at random for the purpose of practicing calculations mentally, in this booklet, we have put together a number of exercises which you can use for calculation practice.

How to use this book :

Before you start taking the Speed Enhancement Tests, make sure that you revise the techniques discussed in the Speed Maths and Data Interpretation classes. You should also make sure that you are thorough with the following:

Multiplication Tables (up to 20 x 10)
Squares (up to 25)
Cubes (up to 12)
Powers of 2 (up to 12)
Powers of 3 (up to 6)
Reciprocals of numbers (up to 12)

Complements of 100 (i.e. the difference between 100 and the given two-digit number).

While taking each exercise/test paper, please follow the instructions given below:

1. Check the starting time and keep in mind the time that has been allotted for that particular exercise.
2. Do not use a calculator.
3. Write as little as possible on paper. You should try doing as much of the calculation as possible mentally.
4. If you have to do rough work, do it in the booklet on the same page as the question that you are answering and not at any other place in the booklet.
5. Some questions require precise calculations whereas some other questions require only approximate calculations. Please remember that the level of accuracy to which you should work out the calculations will depend on the answer choices given in the question paper. So, do not spend more time than is necessary on each question.
6. Stop the exercise/test as soon as the prescribed time is over.
7. After you complete each exercise, spend time working out the questions that you could not complete in the given time. Then, check for the correctness of your answers. Rework all the questions in the test to see whether the method that you adopted was the best/shortest.
8. Even after you use up all the exercises given in this booklet, you should continue similar calculation practice on a regular basis to ensure that your calculation speed does not drop.

For any of the MBA entrance and similar other exams you will be appearing for, there are three areas that you have to take care of:

1. Knowledge

It is essential to have a certain level of knowledge in every area. It is not that a very high level of knowledge is required. A tenth or twelfth standard student should be able to answer these papers very comfortably, but nevertheless, some minimum level of knowledge is required.

2. Speed

One very important factor which determines success in MBA entrance exams is speed. The number of questions one can attempt correctly makes all the difference between the one who gets selected and the one who does not get selected. Speed in all areas of these exams is very important.

3. Approach

Knowledge alone is not sufficient to do well in these exams. For example, you cannot afford to leave out 20 questions out of 30 in a section and still hope to get selected. A person who does not take care of all the areas may not get through. This is where what we refer to as "approach" is important in tackling the test papers. When you take comprehensive test papers, we will discuss this issue of "approach" to test-taking.

Here we will discuss the second of the three aspects mentioned above – speed. We will concentrate on certain speed methods of calculations which will be of great use to you in most of these exams.

As far as calculations are concerned, these exams do not allow the use of calculators or any other calculating aids. The ability to perform calculations faster is an advantage and you will solve more questions than the others in the given time. Even in your day-to-day work where you need to perform calculations, try not to use a calculator. This is a habit that you have to cultivate. If you continue using calculating aids like calculators, it is difficult to improve your calculation speed. However, please remember that any of the methods discussed in this chapter are useful only if you practice these methods regularly as well as consciously use such methods in calculations in your day-to-day work also.

There are two good books useful for improving your speed in calculations.

"Trachtenberg System of Speed Mathematics" – gives simple methods – particularly for multiplications. Spend 15 to 20 minutes every day on this book initially to understand and learn the system. After that, you have to practise the methods given in the system by regularly using them. You can use these methods effectively only if you practice such methods regularly.

"Vedic Mathematics" – In this book, some methods are given for certain types of calculations which, if mastered, can help you immensely.

In this chapter, we will show you a number of calculations and take you through the different steps involved in each of the calculations. These steps are put down on paper here for the purpose of explanation but, when you are performing the calculations, you should do all these steps mentally.

1. ADDITION:

1.01. 342 + 557 + 629 + 746 + 825 =?

Sol. When we are adding three-digit numbers, first add two-digits at a time (units and tens place).
42 + 57 + 29 + 46 + 25 = 199.
To add 42 and 57, mentally treat 57 as 50 + 7 (50 would facilitate quick addition).
Thus 42 + 57 = (42 + 50) + 7 = 92 + 7 = 99.
Similarly 99 + 29 = (99 + 20) + 9 = 128.
128 + 46 = (128 + 40) + 6 = 174.
174 + 25 = (174 + 20) + 5 = 199.
The last two digits (the units place and the tens place) of the addition are 99, while the digit 1 is to be carried forward).
Now add
1(carried) + 3 + 5 + 6 + 7 + 8 = 30.
∴ The result of the addition is 3099.
The same logic can be extended to four-digit additions:

1.02. 6965 + 3246 + 1234 + 9847 + 8238 =?

Sol.

Part II			Part I	
[2∗ + 69]	= 71		69 65	
[(71 + 30) + 2]	= 103	32 46	[(65 + 40) + 6]	= 111
[(103 + 10) + 2]	= 115	12 34	[(111 + 30) + 4]	= 145
[(115 + 90) + 8] ∗∗	= 213	98 47	[(145 + 40) + 7]	= 192
[(213 + 80) + 2]	= 295	82 38	[(192 + 30) + 8]	= 230 from here, we carry forward 2
		295 30		

[∗The 2 shown here is the carry forward indicated at bottom-right].
[∗∗ Alternatively, this calculation can be performed as 115+100–2=215–2=213].

1.03. 1598 + 5423 + 4627 +7953 + 8675 =?

Sol.

Part II				Part I
(2∗ + 15)	= 17	15	98	
[(17 + 50) + 4]	= 71	54	23	[(98 + 20) + 3] = 121
[(71 + 40) + 6]	= 117	46	27	[(121 + 20) + 7] = 148
[(117 + 70) + 9]	= 196	79	53	[(148 + 50) + 3] = 201
[(196 + 80) + 6]	= 282	86	75	[(201 + 70) + 5] = 276
		282	76	

2. SUBTRACTION :

1.04. 987 – 256 =?

Sol. Instead of taking a single digit at a time, subtractions would be faster by taking two digits i.e.
87 – 56 = 31.
900 – 200 = 700
∴ The result of 987 – 256 = 731

1.05. 824 – 587 =?

Sol. Take 100s complement of 87 (i.e.100 – 87) which is 13 and add it to 24. The result is 37. This gives the units and tens digits of the result. Since 24 < 87, we have actually subtracted 87 from 124 i.e. we have borrowed 1 from 8 (of 824). Therefore we now do (7 – 5) = 2. The result is 237.

1.06. 9217 – 858 =?

Sol. Adding 100s complement of 58 (which is 42) to 17, we get (42 + 17) = 59 which gives the units and 10s digits of the result.

Since 58 is greater than 17, we have to borrow 1 from 92 which leaves us with 91. So, the first part of the answer is 91– 8(= 83)
Hence, the result is 8359.

1.07. 934 – 286 + 847 – 798 =?

Sol. When we have a combination of additions and subtractions, first add all the numbers with + sign before them and add all the numbers with – sign before them.
i.e. (934 + 847) – (286 + 798) = 1781 – 1084.
By applying the method explained in previous examples, 1781 – 1084 = 697.

CHAPTER – 1

Additions, Subtractions and Multiplications

Some ways of simplifying calculations

* For multiplication by 5, you should multiply the figure given by 10 and then divide it by 2.

  e.g. 6493 x 5 = 64930/2 = 32465. This is a very simple method. You may feel that adopting this method will only save 5 seconds and wonder how you will benefit by it. If you adopt such methods at a number of places in the full paper and you can save even 4 to 5 minutes it will help you attempt at least 4/5 more questions. This itself may make all the difference to your chances of selection.

* For multiplication by 25, you should multiply the figure given by 100 and divide it by 4. e.g.. 6493 x 25 = 649300/4 = 162325.

* For multiplication by 125, you should multiply the figure given by 1000 and divide by 8 e.g. 6493 x 125 = 6493000/8 = 811625.
  Alternatively, you can treat 125 as 100 + 25. So, multiplication by 125 can be treated as multiplication by 100 and add to this figure one-fourth of itself (because 25 is one-fourth of 100).

* For multiplication by 11, the rule is "for each digit add the right hand digit and write the result as the corresponding figure in the product". For the purpose of applying the rule, it will be easier if you assume that there is one "zero" on either side of the given number. e.g. 7469 x 11 → 0|7469|0 → 82159.

* For multiplication by 12, the rule is "double each digit and add the right hand digit and write the result as the corresponding digit of the product" e.g. 0|7469|0 x 12 = 89628.

  The carry forward digit has to be added to the subsequent step for multiplication by 11 or 12.

* For multiplication by 13, the rule is "three times each digit added to the right hand digit gives the corresponding digit in the product". e.g. 0|92856|0 x 13 = 1207128.

* Multiplication by 19, can be treated as multiplication by (20 – 1); e.g. 92856 x 19 = 92856 x 20 – 92856 = 1764264

  The important point to note here is that all the above calculations, after one or two examples each, should be done orally and hence the students also should practise accordingly. Only when large numbers are dealt with should the student put part of the figures on paper.

Multiplying two numbers both of which are close to the same power of 10

Suppose we want to multiply 97 with 92. The power of 10 to which these two numbers are close is 100. We call 100 as the base. Write the two numbers with the difference from the base i.e., 100 (including the sign) as shown below.

97 → –3 (because 97 is obtained as 100 – 3)
92 → –8 (because 92 is obtained as 100 – 8)

Then take the sum of the two numbers (including their signs) along EITHER one of the two diagonals (it will be the same in both cases). In this example, the diagonal sum is 97 – 8 = 92 – 3 = 89. This will form the first part of the answer.
The second part of the answer is the product (taken along with the sign) of the difference from the power of 10 written for the two numbers – in this example, it is the product of –3 and –8 which is 24.

Hence, putting these two parts 89 and 24 together one next to the other, the answer is 8924, i.e., the product of 97 and 92 is 8924.

Note : The product of the two deviations should have as many digits as the number of zeros in the base. For example, in this case, the product of -8 and -3 has 2 digits which is the same as the number of zeroes in 100.

1.08. Find the product of 113 and 118.

Here, both the numbers are greater than 100 and the base here is 100. Taking the difference of the two numbers 113 and 118 from the base, we get +13 and +18 and write them as below.

113 → +13
118 → +18
------ -------
131 234 Ans. 13334

The first part of the answer is the cross-total of 113 and +18 which is 131. The second part of the answer, i.e., the product of the deviations (+13 and +18) is equal to 234. But we said there should be as many digits in this product as the number of zeroes in the base:- (which is 100 here). Since the base has two zeroes, the second part of the answer should also have two digits. Since 234 has three digits, we should retain two digits 4 and 3 and carry forward the third digit 2 to the first part of the answer. Hence, the first part of the answer now becomes 133 and the second part is 34. The product of 113 and 118 is thus equal to 13334.

1.09. Find the product of 109 and 93.

Here one number greater than 100 and the other is less than 100. Write the differences from 100 (the closest power of 10) along with the sign of the deviation.

109 → +9
93 → –7
------ -----
102 –63 Ans. 10137

The first part of the answer is the cross-total (of 109 and –7 or of 93 and +9) 102. The second part of the answer is the product of +9 and –7 which is –63. Since we cannot have a negative figure as a part of the answer, we need to convert this to a positive number. For this purpose, we borrow the necessary figure from the first part of the answer. Each unit borrowed from the first part of the answer, when it is brought to the second part, becomes equal in value to the base used. If we borrow 1 from the first part (102 here), we are left with 101 for the first part and the 1 that is borrowed becomes 100 for the second part. The second part now is 100 (borrowed) plus -63 (originally there) which is equal to 37. The final result is obtained by putting the first and the second part together. Hence, the product of 109 and 93 is 10137.

1.10. Find the product of 117 and 88.

117 → +17
 88 → –12
----- --------
105 –204 Ans. 10296

Please note that to take care of -204 of the second part, borrowing a 1 from the first part is not sufficient (because the 100 it becomes when it comes to the second part is not numerically greater than –204). So, we should borrow 3 from 105 (leaving 102 as the first part) which becomes 300 in the second part to which –204 should be added giving us 96. Hence, the product of 117 and 88 is 10296.

1.11. Find the product of 997 and 983.

Here, both the numbers are close to 1000 – they are both less than 1000.

997 → –3
983 → –17
----- ------
980 +51 Ans. 980051

The second part 51 has only two digits whereas the base 1000 has three zeroes - so 51 will be written as 051. Hence the product is 980051.

1.12. Find the product of 1013 and 981.

1013 → +13
981 → –19
------ ------
994 –247 Ans.993753

The second part is -247 and if we borrow 1 from the first part (the first part itself will then become 993), it becomes 1000 in the second part. So the second part will effectively be 1000 – 247 = 753. Since the base is 1000, the second part should have three digits and 753 has three digits. Hence, the product of 1013 and 981 is 993753.

We can also extend this method to find the product of two numbers which may not be close to a power of 10 but both of which are close to a multiple of a power of 10. This requires a little bit of modification to the method as discussed in the examples below.

1.13. Find the product of 297 and 292.

Here, the numbers are not close to any power of 10 but are close to 300 which is a multiple of 100 which itself is a power of 10. So we adopt 300 as a "temporary base". This temporary base is a multiple (or a sub-multiple) of the main base 100. Here, the temporary base 300 = 3 x 100. Then, the procedure of finding out the deviation from the base, getting the cross-totals and the product of the deviations should be done in a manner similar to the previous cases except that the deviations will be taken from the temporary base.

297 → –3 (289 x 3 = 867)
292 → –8
----- ------
289 +24 Ans. 86724

We have got the first part of the answer as 289 and the second part of the answer as 24. But before we put these two parts together to get the final result, one more step is involved. The first part of the answer is not the final figure – this is an intermediate stage of the first part. This first part should be multiplied by the same figure with which the power of 10 is multiplied to get the temporary base. In this case, we multiplied 100 (which is the power of 10) by 3 to get the temporary base 300. So, the intermediate stage figure of the first part (289) will also have to be multiplied by 3 to get the final figure for the first part. Hence the first part will be 867 (=3 x 289). Now putting the first and the second parts together, the product of 297 and 292 is 86724 (Please note that the product of the deviations should still have as many digits as the number of zeroes in the base – in this case two because 100 has two zeroes).

1.14. Find the product of 287 and 281.

287 → –13 (268 x 3 = 804)
281 → –19
------ ------
268 247 Ans.80647

Here, the product of the deviations is 247 – there are three digits in this whereas the base has only two zeroes. So, the digit 2 has to be carried forward to the first part of the answer but this carrying forward should be done only after the intermediate stage figure of the first part is multiplied suitably to get the final figure of the first part (in this case, 268 multiplied by 3 gives 804 as the first part of the answer). To this add 2 which is the carry forward digit from the second part and we get 806. Hence, the product of 287 and 281 is 80647.

1.15. Find the product of 317 and 291.

317 → +17 (3 x 308 = 924)
291 → –9
------ ------
308 –153

Here, since one number is greater than 300 and the other is less than 300, the product of the deviations is negative. To make the second part positive, we need to borrow from the first part. But the borrowing should be done only after the intermediate stage figure of the first part is multiplied by the suitable digit to get the final figure of the first part. In this case, we get 308 x 3 = 924 as the final form of the first part. Now to take care of the negative second part of -153, we need to borrow 2 from the first part because the main base is 100, 2 borrowed becomes 200). The final form of the second part is 200 – 153 = 47. So, the product of 317 and 291 is 92247.

1.16. Find the product of 513 and 478.

513 → +13 (491 x 5 = 2455)
478 → –22 300 – 286 = 14
----- -------
491 –286 Ans. 245214

We can look at one more extension of this method where the numbers are not close to the same power of 10 but are close to two different powers of 10. We can multiply such numbers by making a simple modification to this method.

1.17. Find the product of 979 and 92.

979 → –21
920 → –80 (by adding 0 to the number 92, it becomes 920)
----- --------
899 +1680 Ans. 900680

Here, 979 is close to 1000 and 92 is close to 100. For finding the product, we force 92 also close to 1000 by taking it as 920.Then apply our regular method and find the product of 979 and 920. From the resulting product drop the zero at the units place to give the correct result for the product of 979 and 92.

So drop the 0 in units place. Hence the product of 979 and 92 is 90068.

In some cases the algebraic rule $a^2 – b^2 = (a – b) (a + b)$ will be very helpful to find the product of two numbers. For example, if we have to find the product of 132 and 118, rather than applying the method discussed in detail above, we can use the algebraic rule discussed just now.

132 can be written as (125 + 7) and 118 can be written as (125 – 7). So the product of 132 and 118 will be $125^2 – 7^2$. Since we have already discussed methods for calculating squares faster, this method can thus prove to be of immense help in a number of situations provided the student practices sufficiently.

There will be other short cut methods also for a variety of calculations, but the student has to note that none of these will be useful to him in an examination situation unless regular practice is there in using such methods. The student himself should take figures and keep applying various methods for practice on a regular basis.

Two-digit / three-digit multiplication method:

The usual process of multiplying two digit and three digit numbers is time consuming. For example, consider the multiplication 234 × 186 = 43524

```
  234
  186
------------
 1404
1872
234
-------------
43524
--------------
```

In the above method, we observe that in order to find the product of 234 and 186, which is 43524, we wrote three steps (1404, 1872, 234) that are not required. By avoiding these steps we could have saved same amount of time. The amount of time saved may be only 10 seconds per calculation. However, as there will be a large number of such calculations in the exam, you will end up saving a significant amount of time by using this method. The faculty member should demonstrate the method given below orally in order to impress upon students the ease of use of this method.

1.18. Find the product of 24 and 56.

Sol. Step 1:

6 x 4 = 24

```
2 4
5 6
----
  4
```

to be carried forward (CF) to the next step.

Step 2:

(2 x 6) + (4 x 5) + 2 (CF)

= 34

```
2 4
5 6
----
4 4
```

to be carried forward to the next step.

Step 3:

(5 x 2) + 3 (CF)

= 13

```
 2 4
 5 6
-----
1344
```

∴The product of 24 and 56 is 1344.

By observing the above calculation, we summarise the calculations as:

Step 1 : Multiply the right most digits vertically (i.e. 6 × 4)

Step 2 : Cross multiply and add the carry forward (CF) number (6 × 2 + 5 × 4 + CF)

Step 3 : Multiplying the left most digits vertically and add the CF (i.e. 5 × 2 + CF)

1.19. Find the product of 346 and 527.

Sol. Step 1:

7 x 6 = 42

```
3 4 6
5 2 7
------
    2
```

to be carried forward to the next step.

Step 2:

(7 x 4) + (2 x 6) + 4 (CF)

= 44

to be carried forward to the next step.

```
  3 4 6
  5 2 7
  -----
    4 2
```

Step 3:

7 x 3 + 2 x 4 + 5 x 6 + 4 (CF)

= 63

to be carried forward to the next step.

```
  3 4 6
  5 2 7
  -----
  3 4 2
```

Step 4:

2 x 3 + 5 x 4 + 6 (CF)

= 32

to be carried forward to the next step.

```
  3 4 6
  5 2 7
  -------
  2 3 4 2
```

Step 5:

5 x 3 + 3 (CF)

= 18

```
     3 4 6
     5 2 7
  ----------
  18 2 3 4 2
```

∴The product of 346 and 527 is 182342.

With the help of the above methods, we can also find the squares of any number for example to find the square of 44.

```
    4 4
    4 4
  -------
  1 9 3 6
```

Take 3 – 4 examples and make the students do them.

Exercise – 1(a)

Questions 1 to 30: Additions/Subtractions

1. 8563 + 3947 + 5760 + 5691= ?

2. 2248 + 3167 + 4385 + 9158 + 3749 = ?

3. 18916 + 38431 + 29538 + 45691 = ?

4. 103 + 607 – 1146 + 13846 = ?

5. 99786 – 5584 – 934 – 88 – 9 = ?

6. 5871 + 3973 + 4869 + 3654 + 8191 = ?

7. 3381 + 4673 + 8629 + 2736 + 4856 = ?

8. 4967 + 8654 + 2167 + 3949 + 2763 = ?

9. 8163 + 4769 + 213 – 687 – 3691 = ?

10. 1971 – 1636 – 2148 + 6136 = ?

11. 4768 + 3967 + 5431 + 3670 = ?

12. 680 + 3056 + 4109 + 3008 = ?

13. 3344 – 4433 + 7788 – 8877 = ?

14. 9669 – 6338 + 4008 – 5167 = ?

15. 7863 – 3749 – 6739 + 4321 = ?

16. 3546 + 2939 + 4867 + 6349 + 5137 = ?

17. 2367 – 3142 + 9163 – 4978 + 5320 = ?

18. 8678 – 1529 + 3149 – 6981 + 12368 = ?

19. 20538 + 8649 – 40523 + 3753 + 23419 = ?

20. 371 – 1648 + 583 – 2136 + 5321 = ?

21. 3268 + 7327 + 8515 + 2674 – 5545 = ?

22. 9587 + 6372 – 3849 – 1684 – 4273 = ?

23. 6748 + 4372 + 1853 – 9204 + 7373 = ?

24. 3127 + 7213 + 1372 + 2371 + 3217 = ?

25. 2884 + 7368 + 2846 + 6336 – 9878 = ?

26. 53421 + 67586 + 81538 + 69356 = ?

27. 29388 + 51462 + 79863 + 81345 = ?

28. 28654 + 56120 + 38561 + 93288 = ?

29. 96345 + 35671 + 68592 + 86432 = ?

30. 30508 + 38563 + 41634 + 86481 = ?

Questions 31 to 45: Multiplications

31. 328 × 422 = ?

32. 764 × 166 = ?

33. 1012 × 98 = ?

34. 564 × 636 = ?

35. 593 x 607 = ?

36. 492 x 509 = ?

37. 369 x 523 =?

38. 253 x 247 = ?

39. 1372 x 125 = ?

40. 356 x 248 = ?

41. 999 × 375 = ?

42. 2113 x 2117 = ?

43. 1564 × 525 = ?

44. 1831 × 1769 = ?

45. 5324 × 136 = ?

Exercise – 1(b)

Questions 1 to 30: Additions/Subtractions

1. 642 + 513 + 675 + 963 = ?

2. 1325 + 2438 + 3612 + 4753 + 6540 = ?

3. 493 – 72 + 344 – 466 + 289 – 183 + 81 = ?

4. 7632 – 214 + 2463 + 3143 – 563 = ?

5. 8123 + 426 – 9056 + 21 – 749 = ?

6. 2936 + 5138 + 4763 + 2458 + 8134 = ?

7. 3157 + 2361 + 4761 + 5869 + 3148 = ?

8. 4327 + 6334 + 5886 + 4675 + 6751 = ?

9. 5639 + 3946 + 7154 + 3761 + 9159 = ?

10. 631 – 947 + 546 – 834 + 1131 – 136 = ?

11. 8765 + 7654 + 6543 + 5432 + 4321 = ?

12. 8888 + 6688 – 7777 + 5937 – 6666 + 5163 = ?

13. 5637 + 4129 + 3786 + 6149 + 4764 = ?

14. 3967 + 5147 – 8169 + 7143 – 8234 = ?

15. 1738 + 8162 + 3954 + 5146 + 3980 = ?

16. 2147 + 3584+ 6149 – 8193 = ?

17. 8496 + 6943 – 8863 – 5329 = ?

181148 – 6839 + 9349 – 3144 = ?

19 8996 – 3193 – 5143 + 6358 = ?

20. 7164 – 2936 + 5943 – 3784 = ?

21. 793 + 467 + 307 + 253 + 885 + 848 = ?

22. 356 + 496 + 836 + 779 + 589 + 295 = ?

23. 974 + 388 – 22 + 645 – 435 = ?

24. 668 + 843 + 527 + 763 – 338 – 947 = ?

25. 339 + 746 – 444 – 835 + 529 + 611 = ?

26. 28637 + 47329 + 29436 + 63843 = ?

27. 2931 + 4367 + 8139 + 4856 + 6934 = ?

28. 3963 – 2743 + 4671 – 5136 = ?

29. 89561 – 91436 + 9148 – 3639 = ?

30. 35408 + 81563 – 41341 – 51464 = ?

Questions 31 to 45: Multiplications

31. 837 × 555 = ?

32. 239 × 251 = ?

33. 168 × 192 = ?

34. 208 × 207 = ?

35. 385 × 563 = ?

36. 583 × 621 = ?

37. 239 × 357 = ?

38. 489 × 351 = ?

39. 283 × 461 = ?

40. 560 × 625 = ?

41. 6832 × 375 = ?

42. 7869 × 982 = ?

43. 892 × 404 = ?

44. 175 × 825 = ?

45. 3774 × 383 = ?

Key

Exercise – 1(a)

1. 23961	9. 8767	17. 8730	25. 9556	33. 99176	41. 374,625
2. 22707	10. 4323	18. 15685	26. 271901	34. 358704	42. 4473221
3. 132576	11. 17836	19. 15836	27. 242058	35. 359951	43. 821100
4. 13410	12. 10853	20. 2491	28. 216623	36. 250428	44. 3239039
5. 93171	13. –2178	21. 16239	29. 287040	37. 192987	45. 724064
6. 26558	14. 2172	22. 6153	30. 197186	38. 62491	
7. 24275	15. 1696	23. 11142	31. 138416	39. 171500	
8. 22500	16. 22,838	24. 17300	32. 126824	40. 88288	

Exercise – 1(b)

1. 2793	9. 29659	17. 1247	25. 946	33. 32256	41. 2562000
2. 18668	10. 391	18. 514	26. 169245	34. 43056	42. 7727358
3. 486	11. 32715	19. 7018	27. 27227	35. 216755	43. 360368
4. 12461	12. 12233	20. 6387	28. 755	36. 362043	44. 144375
5. –1235	13. 24465	21. 3553	29. 3634	37. 85323	45. 1445442
6. 23429	14. –146	22. 3351	30. 24166	38. 171639	
7. 19296	15. 22980	23. 1550	31. 464535	39. 130463	
8. 27973	16. 3687	24. 1516	32. 59989	40. 350,000	