

**MARUTHI SCHOOL OF BANKING
NUMBER SERIES (NEW PATTERN)-I
ANS & EXPLANATION**

1.5

$$8 + (3*1) = 11$$

$$11 + (3*3) = 20$$

$$20 + (3*7) = 41$$

$$41 + (3*13) = 80 \dots$$

2.4

$$567 / 2 + 0.5 = 284$$

$$284 / 2 + 1 = 143$$

$$143 / 2 + 0.5 = 72$$

$$72 / 2 + 1 = 37$$

$$37 / 2 + 0.5 = 19$$

$$19 / 2 + 1 = 10.5$$

3.3

$$68 - 51 = 17$$

$$102 - 68 = 34$$

$$153 - 102 = 51$$

$$221 - 153 = 68$$

4.2

$$13 + 4 = 17$$

$$17 + 7 = 24$$

$$24 + 12 = 36$$

$$36 + 19 = 55;$$

$$\Rightarrow 24 - 17 = 7; 36 - 24 = 12; 55 - 36 = 19$$

$$\Rightarrow 7 - 4 = 3, 12 - 7 = 5; 19 - 12 = 7;$$

5.2

$$13 * 1 + 1 = 14$$

$$14 * 2 + 2 = 30$$

$$30 * 3 + 3 = 93$$

$$93 * 4 + 4 = 376$$

6.2

$$12 * 1 + 1 = 13$$

$$13 * 2 + 2 = 28$$

$$28 * 3 + 3 = 87$$

$$87 * 4 + 4 = 352$$

7.1

$$6 * 0.5 + 8 = 11$$

$$11 * 1 + 7 = 18$$

$$18 * 0.5 + 6 = 15$$

$$15 * 1 + 5 = 20$$

8.4

$$14 * 0.5 + 1^2 = 8$$

$$8 * 1 + 2^2 = 12$$

$$12 * 2 + 3^2 = 33$$

$$33 * 4 + 4^2 = 148$$

$$148 * 8 + 5^2 = 1209$$

9.3

$$16 * 0.5 + 1^2 = 9$$

$$9 * 1 - 2^2 = 5$$

$$5 * 1.5 + 3^2 = 16.5$$

$$16.5 * 2 - 4^2 = 17$$

10.4

$$16 * 1 + 1^2 = 17$$

$$17 * 2 - 2^2 = 30$$

$$30 * 3 + 3^2 = 99$$

$$99 * 4 - 4^2 = 380$$

$$380 * 5 + 5^2 = 1925$$

11.2

$$\times 2 - 2, \times 3 + 3, \times 4 - 4, \times 5 + 5, \times 6 - 6,$$

12.3

Double difference series:

+20,	+24,	+30,	+38,	+48	+
60					
. +4	+6	+8	+10	+12	

13.3

$$\div 1, \div 2, \div 3, \div 4, \div 5,$$

14.4

+7	+19	+37	+61	+91	+127
+12	+18	+24	+30	+36	

15.2

+7	+19	+37	+61	+91
+12	+18	+24	+30	

16.3

$$\times 0.25, \times 0.50, \times 1, \times 2, \times 4,$$

17.3

$$+13, +26, +39, +52, +65$$

18.2

$$+56, +28, +14, +7, +3.5$$

19.2

$$+ (13^2 + 1), + (12^2 + 1), + (11^2 + 1), + (10^2 + 1)$$

20.1

$$\times 2 + 5, \times 3 + 5, \times 4 + 5, \times 5 + 5$$

21.2

$$2^3 - 1^2, 3^3 - 2^2, 4^3 - 3^2, 5^3 - 4^2, \dots$$

22.3

$$2^3 + 1, 3^3 - 1, 4^3 + 1, 5^3 - 1, 6^3 + 1, 7^3 - 1,$$

23.1

$$\times 2 + 1, \times 2 + 2, \times 2 + 3, \times 2 + 4, \times 2 + 5, \times 2 + 6,$$

24.4

$$\div 2 + 2, \div 2 + 3, \div 2 + 4, \div 2 + 5, \div 2 + 6,$$

25.5
 $\times 3 + 5, \times 3 - 5, \times 3 + 5, \times 3 - 5, \times 3 + 5, \times 3 - 5, \dots$

26.3 $+ 3, - 3^2, + 3^3, - 3^4$

27.2 $+ 1^2, + 2^3, + 3^2, + 4^3, + 5^2, + 6^3$

28.4 $+20, -22, +24, -26, +28, -30$

29.5 $+12, -16, +20, -24, +28, -32$

30.3 $\times 0.5, \times 1.5, \times 2.5, \times 3.5, \times 4.5$

31.4 $2^3 - 1^2, 3^3 - 2^2, 4^3 - 3^2, 5^3 - 4^2, \dots$

32.2 $112 \times 0.5, 56 \times 1.5, 84 \times 2.5, 210 \times 3.5,$

33.3 $12^2 + 1, 13^2 + 1, 14^2 - 1, 15^2 - 1, 16^2 + 1,$

34.5 $11 \times 0.5 + 0.5, 6 \times 1 + 1, 7 \times 1.5 + 1.5, 12 \times 2 + 2, 26 \times 2.5 + 2.5$

35.2 $\times 2 - 3, \times 3 - 4, \times 4 - 5, \times 5 - 6, \times 6 - 7$

36.4
 $6 \times 2 - 6/2, 9 \times 3 - 9/3, 24 \times 4 - 24/4, 90 \times 5 - 90/5,$
 $432 \times 6 - 432/6$

37.2
 $- 2^2, + 2^3, - 3^2, + 3^3, - 4^2,$

38.2
 $5760/16 - 16/2 = 352$
 $352/8 - 8/2 = 40$
 $40/4 - 4/2 = 8$
 $8/2 - 2/2 = 3$
 $3/1 - 1/2 = 2.5$

39.3

6	9	23	50	92	151	229
3	14	27	42	59	78	
	11	13	25	27	19	

40.4
 $\times 0.5^2, \times 1^2, \times 1.5^2, \times 2^2, \times 2.5^2$

41.2
 $1847 \times 7 - 1 - 2, 5 \times 2 - 3, 7 \times 3 - 4, 17 \times 4 - 5, 63 \times 5 - 6,$
 $309 \times 6 - 7$

42.3
1740 $2^3 + 2, 4^3 + 4, 6^3 + 6, 8^3 + 8, 10^3 + 10$

43. 24
 $13^2 - 1, 11^2 - 1, 9^2 - 1, 7^2 - 1, 5^2 - 1, 3^2 - 1$

44. 127
 $5 \times 2 - 3, 7 \times 2 + 3, 17 \times 2 - 3, 31 \times 2 + 3, 65 \times 2 - 3$

45.5
 $15 - 10 = 5, 28 - 15 = 13, 49 - 28 = 21, 78 - 49 = 29$
 $13 - 5 = 8, 21 - 13 = 8, 29 - 21 = 8$
So next number is $78 + 29 + 8 = 115$

46.3
 $12 \times 2, 24 + 3, 27 \times 2, 54 + 3, 57 \times 2$

47.4
 $2^2 - 2/2, 4^2 + 4/2, 6^2 - 6/2, 8^2 + 8/2, 10^2 - 10/2, 12^2 + 12/2$

48.4
 $4^2, 4^2 + 5^2, 5^2 + 6^2, 6^2 + 7^2, \dots$

49.5
 $\times 0.5 + 0.5, \times 1.5 + 1.5, \times 2.5 + 2.5, \times 3.5 + 3.5, \times 4.5 + 4.5,$

50.2
 $\times 2 + 11, \times 2 + 12, \times 2 + 13, \times 2 + 14, \times 2 + 15,$
The following series are based on a particular pattern.
Find the odd one out.

51.1. 38
 $+7, + 7 \times 3 = +21, + 21 \times 3 = +63, + 63 \times 3 = +189, \dots$

52.3. 92

11	18	46	96	169	266	388
7	28	50	73	97	122	
21	22	23	24	25		

53.2. 331
 $\times 2 + 3, \times 2 + 3, \times 2 + 3, \times 2 + 3, \times 2 + 3, \times 2 + 3,$

54.2. 20
 $\div 2 + 4, \div 2 + 4, \div 2 + 4, \div 2 + 4, \div 2 + 4, \div 2 + 4,$

55.4. 43

9	24	56	123	261	542	1110
15	32	67	138	281	568	
17	35	71	143	287		
	*2+1	*2+1	*2+1	*2+1		

56.1. 743
 $\times 2 + 3, \times 3 + 2, \times 2 + 3, \times 3 + 2, \times 2 + 3, \times 3 + 2,$

57.4. 28
 $+ 4^2, + 6^2, + 8^2, + 10^2, + 12^2$

58.3. 957
 $11^2 + 2, 15^2 - 2, 21^2 + 2, 25^2 - 2, 31^2 - 2, 41^2$

59.5. 134
 $16 + 12 = 28$
 $28 + (12+5) = 28 + 17 = 45$
 $45 + (17+5) = 45 + 22 = 67$
 $67 + (22+5) = 67 + 27 = 94$
 $94 + (27+5) = 126$
 $126 + (32+5) = 163$

60.3. 152

27	57	167	297	527	797	1187
30	110	130	230	270	390	
80	20	100	40	120		

**MARUTHI SCHOOL OF BANKING
NUMBER SERIES (NEW PATTERN) - II**

ANS & EXPLANATION

1.3. 629

$$2 \times 6 - 5 = 7,$$

$$7 \times 5 - 6 = 29,$$

$$29 \times 4 - 7 = 109,$$

$$109 \times 3 - 8 = 319,$$

$$319 \times 2 - 9 = 629$$

2.4. 360 $\times 1/3, \times 2/3, \times 3/3, \times 4/3, \times 5/3$

3.3. 143 $-11^2, +9^2, -7^2, +5^2, -3^2$

4.2.173

$$3 + (1^2 * 0) = 3$$

$$3 + (2^2 * 1) = 7$$

$$7 + (3^2 * 2) = 25$$

$$25 + (4^2 * 3) = 73$$

$$73 + (5^2 * 4) = 173$$

5.5. 162

16.....	20.....	39.....	83.....
162.....	286		
.	+4	+19	+44
.		+15	+25
			+35
			+79
			+45
			+124

6.1. 36

16.....	20.....	34.....	28.....
52.....	36		
.	+4	+14	-6
16			+24
.	+10	-20	+30
			-40

7.2.59

Two series
 $26 + 11 = 37, 37 + 11 = 48, 48 + 11 = 59$
 $20 + 9 = 29, 29 + 9 = 38$

8.5. 55

$$+2^2, -3^2, +4^2, -5^2, +6^2$$

9.3. 1460

$$*3 - 4, *3 - 4, *3 - 4, *3 - 4, *3 - 4$$

10.5.936

$$4 \times 1 + 6 = 10,$$

$$10 \times 2 - 6 = 14,$$

$$14 \times 3 + 6 = 48,$$

$$48 \times 4 - 6 = 186,$$

$$186 \times 5 + 6 = 936$$

11.1

$$2 \times 2 + 2 = 6,$$

$$6 \times 2 + 4 = 16,$$

$$16 \times 2 + 8 = 40,$$

$$40 \times 2 + 16 = 96$$

$$96 \times 2 + 32 = 224$$

12.4

$$21 \times 0.5 - 0.5 = 10,$$

$$10 \times 1 - 1 = 9,$$

$$9 \times 1.5 - 1.5 = 12,$$

$$12 \times 2 - 2 = 22,$$

$$22 \times 2.5 - 2.5 = 52.5$$

13.2

$$15 \times 2 - 1 = 29,$$

$$29 \times 1 - 2 = 27,$$

$$27 \times 2 - 1 = 53,$$

$$53 \times 1 - 2 = 51,$$

$$51 \times 2 - 1 = 101$$

14.4

$$3 \times 0.5 + 1.5 = 3,$$

$$3 \times 1 + 3 = 6,$$

$$6 \times 2 + 6 = 18,$$

$$18 \times 4 + 12 = 84,$$

$$84 \times 8 + 24 = 696$$

15.2

$$22 * 0.5 + 1^2 = 12$$

$$12 * 1 - 2^2 = 8$$

$$8 * 1.5 + 3^2 = 21$$

$$21 * 2 - 4^2 = 26$$

$$26 * 2.5 + 5^2 = 90$$

16.4 $*1 + 2, *3 + 6, *5 + 10, *7 + 14, *9 + 18$

17.1

$$*0.5 + 0, *1.5 + 0.5, *2.5 + 1, *3.5 + 1.5, *4.5 + 2$$

18.3 $*2 - 2, *3 + 3, *4 - 4, *5 + 5, *6 - 6$

19.2 $*1.2, *1.25, *1.3, *1.35, *1.4$

20.5 $+2^2, -3^2, +4^2, -5^2, +6^2$

21.5

$$8 \times 2 - 2 = 14$$

$$14 \times 4 - (2+6) = 48$$

$$48 \times 6 - (8+10) = 270$$

$$270 \times 8 - (18+14) = 2128$$

$$2128 \times 10 - (32+18) = 21230$$

22.2

$$2 \times 6 + 6^{²} = 48$$

$$48 \times 5 + 5^{²} = 265$$

$$265 \times 4 + 4^{²} = 1076$$

$$1076 \times 3 + 3^{²} = 3237$$

$$3237 \times 2 + 2^{²} = 6478$$

23.3

$$1010 - 15^{²} = 785$$

$$785 - 13^{²} = 616$$

$$616 - 11^{²} = 495$$

$$495 - 9^{²} = 414$$

$$414 - 7^{²} = 365$$

24.4

$$(970-30) \div 2 = 470$$

$$(470-26) \div 2 = 222$$

$$(222-22) \div 2 = 100$$

$$(100-18) \div 2 = 41$$

$$(41-14) \div 2 = 13.5$$

25.2

$$8 \times 1 + 1 \times 8 = 16$$

$$16 \times 2 + 2 \times 8 = 48$$

$$48 \times 3 + 3 \times 8 = 168$$

$$168 \times 4 + 4 \times 8 = 704$$

$$704 \times 5 + 5 \times 8 = 3560$$

26.1

$$4 \times 7 - 7 = 21$$

$$21 \times 6 - 6 = 120$$

$$120 \times 5 - 5 = 595$$

$$595 \times 4 - 4 = 2376$$

$$2376 \times 3 - 3 = 7125$$

27.4
 $(444 - 4) \div 2 = 220$
 $(220 - 4) \div 2 = 108$
 $(108 - 4) \div 2 = 52$
 $(52 - 4) \div 2 = 24$
 $(24 - 4) \div 2 = 10$

28.3
 $21 + 23 = 44$
 $44 + 46 = 90$
 $90 + 69 = 159$
 $159 + 92 = 251$
 $251 + 115 = 366$

29.4
 $4 \times 2 - 2 = 6$
 $6 \times 3 - 2 = 16$
 $16 \times 2 - 2 = 30$
 $30 \times 3 - 2 = 88$
 $88 \times 2 - 2 = 174$

30.1
 $2 \times 1 + 1 = 3$
 $3 \times 2 - 2 = 4$
 $4 \times 3 + 3 = 15$
 $15 \times 4 - 4 = 56$
 $56 \times 5 + 5 = 285$
 $285 \times 6 - 6 = 1704$

31.4
 $4 \times 3 + 3 = 15$
 $15 \times 3 + 5 = 50$
 $50 \times 3 + 7 = 157$
 $157 \times 3 + 9 = 480$
 $480 \times 3 + 11 = 1451$

32.2
 $2 \times 9 - 7 = 11$
 $11 \times 8 - 6 = 82$
 $82 \times 7 - 5 = 569$
 $569 \times 6 - 4 = 3410$
 $3410 \times 5 - 3 = 17047$

33.2

3	6	12	30	102	462
+3	+6	+18	+72	+360	
$\times 2$	$\times 3$	$\times 4$	$\times 5$		

34.5 Difference of difference series.

35.3
 $8 \times 1 + 9 = 17$
 $17 \times 2 + 8 = 42$
 $42 \times 3 + 7 = 133$
 $133 \times 4 + 6 = 538$
 $538 \times 5 + 5 = 2695$

36.4 $\div 2 + 0.5, \div 2 + 0.5, \div 2 + 0.5, \div 2 + 0.5, \div 2 + 0.5$

37.2
 $(572 - 4) \div 2 = 284$
 $(284 - 4) \div 2 = 140$
 $(140 - 4) \div 2 = 68$
 $(68 - 4) \div 2 = 32$
 $(32 - 4) \div 2 = 14$

38.4 $*1 - 2, *3 - 4, *5 - 6, *7 - 8, *9 - 10.$

39.3
 $(10495 - 49) \div 6 = 1741$
 $(1741 - 36) \div 5 = 341$
 $(341 - 25) \div 4 = 79$
 $(79 - 16) \div 3 = 21$
 $(21 - 9) \div 2 = 6$

40.5
 $2 \times 2 + 4 = 8$
 $8 \times 5 - 8 = 32$
 $32 \times 8 + 12 = 268$
 $268 \times 11 - 16 = 2932$
 $2932 \times 14 + 20 = 41068$

41.1
 $11^2 + 1 = 122$
 $13^2 - 1 = 168$
 $15^2 + 1 = 226$
 $17^2 - 1 = 288$
 $19^2 + 1 = 362$
 $21^2 - 1 = 440$

42.3
 $1^2 * 2, 2^2 * 4, 3^2 * 6, 4^2 * 8, 5^2 * 10, 6^2 * 12$

43.2
 $*2 + 1, *2 + 11, *2 + 21, *2 + 31, *2 + 41$

44.5
 $5 * 1 - 2, 3 * 2 - 3, 3 * 3 - 4, 5 * 4 - 5, 15 * 5 - 6, 69 * 6 - 7$

45.3
 $*1 + 1, *2 - 2, *4 + 4, *6 - 6, *8 + 8.$

46.3
 $*0.5 - 0.5, *1.5 - 1.5, *2.5 - 2.5, *3.5 - 3.5, *4.5 - 4.5$

47.5
 $2^3 - 2, 4^3 - 4, 6^3 - 6, 8^3 - 8, 10^3 - 10$

48.4
 $*1 - 2, *3 - 4, *5 - 6, *7 - 8, *9 - 10.$

49.1
 $*2 - 3, *2 + 3, *2 - 3, *2 + 3, *2 - 3$

50.4
 $0^2 + 1^2, 1^2 + 2^2, 2^2 + 3^2, 3^2 + 4^2$

51.2
 $*1 + 1, *2 - 2, *3 + 3, *4 - 4, *5 + 5.$

52.4 Numbers +
 $+ 2 * 1^3, + 2 * 2^3 + 2 * 3^3, + 2 * 4^3, + 2 * 5^3.$

53.3 $*2 - 1, *2 - 11, *2 - 21, *2 - 31, *2 - 41$

54.2 $*6 - 6, *5 - 5, *4 - 4, *3 - 3, *2 - 2$

55.1 $*1 + 1, *2 - 2, *4 + 4, *8 - 8, *16 + 16.$

56.1
 $*0.5 + 0.5, *1.5 + 1.5, *2.5 + 2.5, *3.5 + 3.5, *4.5 + 4.5.$

57.5

14	22	12	26	6	34
+8	-10	+14	-20	+28	
+2	+4	+6	+8		

58.3 $*1 - 2, *3 - 4, *5 - 6, *7 - 8, *9 - 10.$

59.5 $+11, +22, +33, +44, +55.$

60.4 $*0.5 + 1, *0.5 + 1, *0.5 + 1, *0.5 + 1, *0.5 + 1.$