

RS Aggarwal Solutions for Class 6 Maths Chapter 3 –
Whole Numbers

Exercise 3A

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1.

Solution

31000, 31001 and 31002 are the next three whole numbers after 30999

2.

Solution

To find three whole numbers just occurring before 10001. Subtract 1 from each number

$$10001 - 1 = 10000$$

$$10000 - 1 = 9999$$

$$9999 - 1 = 9998$$

Hence 10000, 9999 and 9998 are the numbers occurring just before 10001

3.

Solution

To find the whole numbers between 1032 and 1209

$$(1209 - 1032) - 1 = 177 - 1$$

$$= 176$$

Hence 176 is the whole number between 1032 and 1209

4.

Solution

Since all natural numbers considering 0 are whole numbers

Hence 0 is the smallest whole number

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Exercise 3B

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1.

Solutions

$$(i) 458 + 639 = 639 + 458$$

$$(ii) 864 + 2006 = 2006 + 864$$

$$(iii) 1946 + 984 = 984 + 1946$$

$$(iv) 8063 + 0 = 8063$$

$$(v) 53501 + (574 + 799) = 574 + (53501 + 799)$$

2.

Solution

$$(i) 16509 + 114$$

$$16509 + 114 = 16623$$

Reversing the order of the addends, we get

$$114 + 16509 = 16623$$

$$\therefore 16509 + 114 = 114 + 16509$$

$$(ii) 2359 + 548$$

$$2359 + 548 = 2907$$

Reversing the order of the addends, we get

$$548 + 2359 = 2907$$

$$\therefore 2359 + 548 = 548 + 2359$$

$$(iii) 19753 + 2867$$

$$19753 + 2867 = 22620$$

Reversing the order of the addends

$$2867 + 19753 = 22620$$

$$\therefore 19753 + 2867 = 2867 + 19753$$

3.

Solution

We have

$$(1546 + 498) + 3589 = 2044 + 3589$$

$$= 5633$$

$$1546 + (498 + 3589) = 1546 + 4087$$

$$= 5633$$

Yes the two sums are equal

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Hence associative property of addition is satisfied

4.

Solution

(i) $953 + 707 + 647$

Using associative property of addition

$$953 + (707 + 647) = 953 + 1354 \\ = 2307$$

(ii) $1983 + 647 + 217 + 353$

Using associative property of addition

$$(1983 + 647) + (217 + 353) = 2630 + 570 \\ = 3200$$

(iii) $15409 + 278 + 691 + 422$

Using associative property of addition

$$(15409 + 278) + (691 + 422) = 15687 + 1113 \\ = 16800$$

(iv) $3259 + 10001 + 2641 + 9999$

Using associative property of addition

$$(3259 + 10001) + (2641 + 9999) = 13260 + 12640 \\ = 25900$$

(v) $1 + 2 + 3 + 4 + 96 + 97 + 98 + 99$

Using associative property of addition

$$(1 + 2 + 3 + 4) + (96 + 97 + 98 + 99) = 10 + 390 \\ = 400$$

(vi) $2 + 3 + 4 + 5 + 45 + 46 + 47 + 48$

Using associative property of addition

$$(2 + 3 + 4 + 5) + (45 + 46 + 47 + 48) = 14 + 186 \\ = 200$$

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Exercise 3C

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1.

Solution(i) Subtraction of $6237 - 694 = 5543$

Addition:

$$5543 + 694 = 6237$$

(ii) Subtraction of $21205 - 10899 = 10306$

Addition:

$$10306 + 10899 = 21205$$

(iii) Subtraction of $100000 - 78987 = 21013$

Addition:

$$21013 + 78987 = 100000$$

(iv) Subtraction of $1010101 - 656565 = 353536$

Addition:

$$353536 + 656565 = 1010101$$

2.

Solutions(i) $917 - 359 = 558$ (ii) $6172 - 3269 = 2903$ (iii) $5001003 - 156987 = 4844016$ (iv) $1000000 - 29571 = 970429$

3.

Solutions(i) $463 - 9$ It can be written as $463 - 10 + 1$

$$= 464 - 10$$

$$= 454$$

(ii) $5632 - 99$ It can be written as $5632 - 100 + 1$

$$= 5633 - 100$$

$$= 5533$$

(iii) $8640 - 999$ It can be written as $8640 - 1000 + 1$

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$$= 8641 - 1000$$

$$= 7641$$

$$(iv) 13006 - 9999$$

$$\text{It can be written as } = 13006 - 10000 + 1$$

$$= 13007 - 10000$$

$$= 3007$$

4.

Solution

The smallest 7 digit number is 1000000

The largest 4 digit number is 9999

To find their difference = $1000000 - 9999$

$$= 1000000 - 10000 + 1$$

$$= 1000001 - 10000$$

$$= 990001$$

∴ The difference between the smallest number of 7 digits and the largest number of 4 digits

$$= 990001$$

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Exercise 3D

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1.

Solution

The true statements are

(i) $246 \times 1 = 246$

(ii) $13690 \times 0 = 0$

(iii) $593 \times 188 = 188 \times 593$

(iv) $286 \times 753 = 753 \times 286$

(v) $38 \times (91 \times 37) = 91 \times (38 \times 37)$

(vi) $13 \times 100 \times 1000 = 1300000$

(vii) $59 \times 66 + 59 \times 34 = 59 \times (66 + 34)$

(viii) $68 \times 95 = 68 \times 100 - 68 \times 5$

2.

Solutions

(i) $19 \times 17 = 17 \times 19$

 \Rightarrow Commutative law of multiplication is used

(ii) (16×32) is a whole number

 \Rightarrow closure property is used

(iii) $(29 \times 36) \times 18 = 29 \times (36 \times 18)$

 \Rightarrow Associative of multiplication property is used

(iv) $1480 \times 1 = 1480$

 \Rightarrow Multiplicative identity is used

(v) $1732 \Rightarrow 0 = 0$

 \Rightarrow Zero property is used

(vi) $72 \times 98 + 72 \times 2 = 72 \times (98 + 2)$

 \Rightarrow Distributive law of multiplication over addition is used

(vii) $63 \times 126 - 63 \times 26 = 63 \times (126 - 26)$

 \Rightarrow Distributive law of multiplication over subtraction is used

3.

Solutions

(i) By using distributive property we get

$647 \times 13 + 647 \times 7 = 647 \times (13 + 7)$

$= 647 \times 20$

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$$= 12940$$

(ii) By using distributive property we get

$$8759 \times 94 + 8759 \times 6 = 8759 \times (94 + 6)$$

$$= 8759 \times 100$$

$$= 875900$$

(iii) By using distributive property we get

$$7459 \times 999 + 7459 = 7459 \times (999 + 1)$$

$$= 7459 \times 1000$$

$$= 7459000$$

(iv) By using distributive property we get

$$9870 \times 561 - 9870 \times 461 = 9870 \times (561 - 461)$$

$$= 9870 \times 100$$

$$= 987000$$

(v) By using distributive property we get

$$569 \times 17 + 569 \times 13 + 569 \times 70 = 569 \times (17 + 13 + 70)$$

$$= 569 \times 100$$

$$= 56900$$

(vi) By using distributive property we get

$$16825 \times 16825 - 16825 \times 6825 = 16825 \times (16825 - 6825)$$

$$= 16825 \times 10000$$

$$= 168250000$$

4.

Solutions

(i) It can be written as

$$2 \times 1658 \times 50 = (2 \times 50) \times 1658$$

$$= 100 \times 1658$$

$$= 165800$$

(ii) It can be written as

$$4 \times 927 \times 25 = (4 \times 25) \times 927$$

$$= 100 \times 927$$

$$= 92700$$

(iii) It can be written as

$$625 \times 20 \times 8 \times 50 = (20 \times 50) \times 8 \times 625$$

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$$= 1000 \times 8 \times 625$$

$$= 8000 \times 625$$

$$= 5000000$$

(iv) It can be written as

$$574 \times 625 \times 16 = 574 \times (625 \times 16)$$

$$= 574 \times 10000$$

$$= 5740000$$

(v) It can be written as

$$250 \times 60 \times 50 \times 8 = (250 \times 8) \times (60 \times 50)$$

$$= 2000 \times 3000$$

$$= 6000000$$

(vi) It can be written as

$$8 \times 125 \times 40 \times 25 = (8 \times 125) \times (40 \times 25)$$

$$= 1000 \times 1000$$

$$= 1000000$$

5.

Solutions

(i) Using distributive law of multiplication over addition

We get

$$740 \times 105 = 740 \times (100 + 5)$$

$$= 740 \times 100 + 740 \times 5$$

$$= 74000 + 3700$$

$$= 77700$$

(ii) Using distributive law of multiplication over addition

We get

$$245 \times 1008 = 245 \times (1000 + 8)$$

$$= 245 \times 1000 + 245 \times 8$$

$$= 245000 + 1960$$

$$= 246960$$

(iii) Using distributive law of multiplication over subtraction

We get

$$947 \times 96 = 947 \times (100 - 4)$$

$$= 947 \times 100 - 947 \times 4$$

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$$= 94700 - 3788$$

$$= 90912$$

(iv) Using distributive law of multiplication over subtraction

We get

$$996 \times 367 = 367 \times (1000 - 4)$$

$$= 367 \times 1000 - 367 \times 4$$

$$= 367000 - 1468$$

$$= 365532$$

(v) Using distributive law of multiplication over addition

We get

$$472 \times 1097 = 472 \times (1000 + 97)$$

$$= 472 \times 1000 + 472 \times 97$$

$$= 472000 + 45784$$

$$= 517784$$

(vi) Using distributive law of multiplication over addition

We get

$$580 \times 64 = 580 \times (60 + 4)$$

$$= 580 \times 60 + 580 \times 4$$

$$= 34800 + 2320$$

$$= 37120$$

(vii) Using distributive law of multiplication over subtraction

We get

$$439 \times 997 = 439 \times (1000 - 3)$$

$$= 439 \times 1000 - 439 \times 3$$

$$= 439000 - 1317$$

$$= 437683$$

(viii) Using distributive law of multiplication over addition

We get

$$1553 \times 198 = 1553 \times (100 + 98)$$

$$= 1553 \times 100 + 1553 \times 98$$

$$= 155300 + 152194$$

$$= 307494$$

6.

RS Aggarwal Solutions for Class 6 Maths Chapter 3 –
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Distributive law of multiplication over addition = $a(b + c)$

$$= ab + ac$$

Distributive law of multiplication over subtraction = $a(b - c)$

$$= ab - ac$$

(i) 3576×9 can be written as

$$3576 \times 9 = 3576 \times (10 - 1)$$

$$= 3576 \times 10 - 3576 \times 1$$

$$= 35760 - 3576$$

$$= 32184$$

(ii) 847×99 can be written as

$$847 \times 99 = 847 \times (100 - 1)$$

$$= 847 \times 100 - 847 \times 1$$

$$= 84700 - 847$$

$$= 83853$$

(iii) 2437×999 can be written as

$$2437 \times 999 = 2437 \times (1000 - 1)$$

$$= 2437 \times 1000 - 2437 \times 1$$

$$= 2437000 - 2437$$

$$= 2434563$$

7.

Solutions

(i) 458

$$\times 67$$

$$3206$$

$$27480$$

$$30686$$

Hence by multiplying by 7 and 60 we get $458 \times 67 = 30686$

(ii) 3709

$$\times 89$$

$$3381$$

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296720

330101

Hence by multiplying by 9 and 80 we get $3709 \times 89 = 330101$

(iii) 4617

 $\times 234$

18468

138510

923400

1080378

Hence by multiplying by 4, 30 and 200 we get $4617 \times 234 = 1080378$

(iv) 15208

 $\times 542$

30416

608320

7604000

8242736

Hence by multiplying by 2, 40 and 500 we get $1528 \times 542 = 8242736$

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Exercise 3E

1.

Solutions

(i) $1936 \div 16$

		0	1	2	1
1	6	1	9	3	6
	-	0			
		1	9		
	-	1	6		
			3	3	
		-	3	2	
				1	6
			-	1	6
					0

Here Dividend = 1936

Divisor = 16

Quotient = 121

Remainder = 0

To check divisor \times quotient + remainder = dividend

$$16 \times 121 + 0 = 1936$$

$$16 \times 121 = 1936$$

(ii) $19881 \div 47$

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			0	0	4	2	3
4	7	1	9	8	8	1	
	-	0					
		1	9				
	-		0				
		1	9	8			
	-	1	8	8			
			1	0	8		
	-		9	4			
			1	4	1		
		-	1	4	1		
					0		

Here Dividend = 19881

Divisor = 47

Quotient = 423

Remainder = 0

To Check

Divisor \times quotient + remainder = dividend

$$47 \times 423 + 0 = 19881$$

$$47 \times 423 = 19881$$

(iii) $257796 \div 341$

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			0	0	0	7	5	6
3	4	1	2	5	7	7	9	6
		-	0					
			2	5				
		-		0				
			2	5	7			
		-			0			
			2	5	7	7		
		-	2	3	8	7		
				1	9	0	9	
		-		1	7	0	5	
				2	0	4	6	
		-		2	0	4	6	
								0

Here,

Dividend = 257796

Divisor = 341

Quotient = 756

Remainder = 0

To Check

Divisor \times quotient + remainder = dividend

$$341 \times 756 + 0 = 257796$$

$$341 \times 756 = 257796$$

$$(iv) 612846 \div 582$$

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			0	0	1	0	5	3
5	8	2	6	1	2	8	4	6
		-	0					
			6	1				
		-	0					
			6	1	2			
		-	5	8	2			
			3	0	8			
		-			0			
			3	0	8	4		
		-	2	9	1	0		
			1	7	4	6		
		-	1	7	4	6		
							0	

Here

Dividend = 612846

Divisor = 582

Quotient = 1053

Remainder = 0

To Check

Divisor \times Quotient + Remainder = Dividend

$$582 \times 1053 + 0 = 612846$$

$$582 \times 1053 = 612846$$

$$(v) 34419 \div 149$$

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				0	0	2	3	1
1	4	9	3	4	4	1	9	
	-	0						
		3	4					
	-		0					
		3	4	4				
	-	2	9	8				
		4	6	1				
	-	4	4	7				
			1	4	9			
	-		1	4	9			
						0		

Dividend = 34419

Divisor = 149

Quotient = 231

Remainder = 0

To Check

Divisor \times Quotient + Remainder = Dividend

$$149 \times 231 + 0 = 34419$$

$$149 \times 231 = 34419$$

$$(vi) 39039 \div 1001$$

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				0	0	0	3	9
1	0	0	1	3	9	0	3	9
			-	0				
				3	9			
			-		0			
				3	9	0		
			-			0		
				3	9	0	3	
			-	3	0	0	3	
					9	0	0	9
			-		9	0	0	9
								0

Here

Dividend = 39039

Divisor = 1001

Quotient = 39

Remainder = 0

To Check

Divisor \times Quotient + Remainder = Dividend

$1001 \times 39 + 0 = 39039$

$1001 \times 9 = 39039$

2.

Solutions

(i) $6971 \div 47$

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		0	1	4	8
4	7	6	9	7	1
-	0				
	6	9			
-	4	7			
	2	2	7		
-	1	8	8		
		3	9	1	
	-	3	7	6	
			1	5	

Here

Quotient = 148

Remainder = 15

To Check

Divisor \times Quotient + Remainder = Dividend

$$47 \times 148 + 15 = 6971$$

$$6956 + 15 = 6971$$

$$6971 = 6971$$

Hence, Verified.

(ii) $4178 \div 35$

		0	1	1	9
3	5	4	1	7	8
-	0				
	4	1			
-	3	5			
		6	7		
	-	3	5		
		3	2	8	
	-	3	1	5	
			1	3	

Here

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Quotient = 119 and Remainder = 13

To Check

Divisor \times Quotient + Remainder = Dividend

$$35 \times 119 + 13 = 4178$$

$$4165 + 13 = 4178$$

$$4178 = 4178$$

Hence, Verified.

(iii) $36195 \div 153$

			0	0	2	3	6
1	5	3	3	6	1	9	5
		-	0				
			3	6			
		-		0			
			3	6	1		
		-	3	0	6		
				5	5	9	
		-		4	5	9	
				1	0	0	5
		-			9	1	8
						8	7

Here,

Quotient = 236

Remainder = 87

To Check

Divisor \times Quotient + Remainder = Dividend

$$153 \times 236 + 87 = 36195$$

$$36108 + 87 = 36195$$

$$36195 = 36195$$

Hence, verified

(iv) $93575 \div 400$

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			0	0	2	3	3
4	0	0	9	3	5	7	5
	-	0					
			9	3			
	-		0				
			9	3	5		
	-	8	0	0			
			1	3	5	7	
	-	1	2	0	0		
			1	5	7	5	
	-	1	2	0	0		
			3	7	5		

Here,

Quotient = 233

Remainder = 375

To Check

Divisor \times Quotient + Remainder = Dividend

$$400 \times 233 + 375 = 93575$$

$$93200 + 375 = 93575$$

$$93575 = 93575$$

Hence, verified

(v) $23025 \div 1000$

RS Aggarwal Solutions for Class 6 Maths Chapter 3 – Whole Numbers

				0	0	0	2	3
1	0	0	0	2	3	0	2	5
			-	0				
				2	3			
			-		0			
				2	3	0		
			-			0		
				2	3	0	2	
			-	2	0	0	0	
					3	0	2	5
			-		3	0	0	0
							2	5

Here,

Quotient = 23

Remainder = 25

To Check

Divisor \times Quotient + Remainder = Dividend

$$1000 \times 23 + 25 = 23025$$

$$23000 + 25 = 23025$$

$$23025 = 23025$$

Hence, verified

(vi) $16135 \div 875$

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				0	0	0	1	8
8	7	5		1	6	1	3	5
		-	0					
			1	6				
		-		0				
			1	6	1			
		-			0			
			1	6	1	3		
		-		8	7	5		
			7	3	8	5		
		-	7	0	0	0		
			3	8	5			

Here,

Quotient = 18

Remainder = 385

To Check

Divisor \times Quotient + Remainder = Dividend

$$875 \times 18 + 385 = 16135$$

$$15750 + 385 = 16135$$

$$16135 = 16135$$

Hence, verified

3.

Solutions

(i) $65007 \div 1$

By Actual Division we have:

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	6	5	0	0	7
1	6	5	0	0	7
-	6				
	0	5			
-		5			
		0	0		
-			0		
			0	0	
		-		0	
				0	7
			-		7
					0

∴ Value of $65007 \div 47 = 65007$

(ii) $0 \div 879$

Any number which is divisible by 0 is 0

∴ Value of $0 \div 879 = 0$

(iii) $981 + 5720 \div 10$

By actual division we have:

		0	5	7	2
1	0	5	7	2	0
-	0				
		5	7		
-		5	0		
			7	2	
-			7	0	
				2	0
-				2	0
					0

$(5720 \div 10) = 572$

$981 + 572 = 1553$

∴ Value of $981 + (5720 \div 10) = 1553$

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(iv) $1507 - (625 \div 25)$

By actual division we have:

		0	2	5
2	5	6	2	5
-	0			
		6	2	
-	5	0		
		1	2	5
-	1	2	5	
				0

$(625 \div 25) = 25$

$\therefore \text{Value of } 1507 - (625 \div 25) = 1507 - 25$
 $= 1482$

(v) $32277 \div (648 - 39)$

$648 - 39 = 609$

$32277 \div 609$

By Actual Division we have:

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$$\begin{array}{r}
 00053 \\
 609 \overline{) 32277} \\
 \underline{0} \\
 32 \\
 \underline{0} \\
 322 \\
 \underline{0} \\
 3227 \\
 \underline{3045} \\
 1827 \\
 \underline{1827} \\
 0
 \end{array}$$

\therefore Value of $32277 \div (648 - 39) = 53$

(vi) $(1573 \div 1573) - (1573 \div 1573)$

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$$\begin{array}{r}
 0001 \\
 1573 \overline{) 1573} \\
 \underline{0} \\
 15 \\
 \underline{0} \\
 157 \\
 \underline{0} \\
 1573 \\
 \underline{1573} \\
 0
 \end{array}$$

$$(1573 \div 1573) = 1$$

$$1 - 1 = 0$$

$$\therefore \text{Value of } (1573 \div 1573) - (1573 \div 1573) = 0$$

4.

Solution

$$\text{Given } n \div n = n$$

$$\text{This shows that } n/n = n$$

$$n = n^2$$

$$\text{Here clearly shows that whole number } n = n^2$$

$$\text{Hence, the whole number is 1}$$

$$\therefore n = 1$$

5.

Solution

$$\text{Given the product of two numbers} = 504347$$

$$\text{The other number} = 317$$

$$\text{Let the two numbers be } X \text{ and } Y$$

$$\text{The product of two numbers} = X \times Y$$

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$$X \times Y = 504347$$

$$\text{Let } X = 317$$

$$317 \times Y = 504347$$

$$Y = 504347 \div 317$$

$$\text{Dividend} = 504347$$

$$\text{Divisor} = 317$$

$$\begin{array}{r}
 019 \\
 317 \overline{) 504347} \\
 \underline{0} \\
 50 \\
 \underline{0} \\
 504 \\
 \underline{317} \\
 1873 \\
 \underline{1585} \\
 2884 \\
 \underline{2853} \\
 317 \\
 \underline{317} \\
 0
 \end{array}$$

To check

$$\text{Divisor} \times \text{Quotient} + \text{Remainder} = \text{Dividend}$$

$$317 \times 1591 + 0 = 504347$$

$$317 \times 1591 = 504347$$

$$504347 = 504347$$

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∴ The other number is 1591

6.

Solution

Given

Dividend = 59761

Quotient = 189

Remainder = 37

To find the divisor

Divisor \times Quotient + Remainder = Dividend

Dividend = Divisor \times Quotient + Remainder

$59761 = \text{Divisor} \times 189 + 37$

$\text{Divisor} \times 189 = 59761 - 37$

$\text{Divisor} \times 189 = 59724$

$\text{Divisor} = 59724 / 189$

$59724 \div 189$

			0	0	3	1	6
1	8	9	5	9	7	2	4
		-	0				
			5	9			
		-		0			
			5	9	7		
		-	5	6	7		
			3	0	2		
		-	1	8	9		
			1	1	3	4	
		-	1	1	3	4	
							0

∴ Divisor = 316

7.

Solution

Here given

Dividend = 55390

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Divisor = 299

Remainder = 75

To find the Quotient

Dividend = Divisor \times Quotient + Remainder

$$55390 = 299 \times \text{Quotient} + 75$$

$$299 \times \text{Quotient} = 55390 - 75$$

$$299 \times \text{Quotient} = 55315$$

$$\text{Quotient} = 55315 / 299$$

$$= 55315 \div 299$$

			0	0	1	8	5
2	9	9	5	5	3	1	5
		-	0				
			5	5			
		-		0			
			5	5	3		
		-	2	9	9		
			2	5	4	1	
		-	2	3	9	2	
			1	4	9	5	
		-	1	4	9	5	
						0	

\therefore Quotient = 185

8.

Solution

First let us divide 13601 by 87

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$$\begin{array}{r}
 00156 \\
 87 \overline{) 13601} \\
 \underline{0} \\
 13 \\
 \underline{0} \\
 136 \\
 \underline{87} \\
 490 \\
 \underline{435} \\
 551 \\
 \underline{522} \\
 29
 \end{array}$$

Here, remainder = 29

Subtract 29 from 13601 to get a number exactly divisible by 87

$$13601 - 29 = 13572$$

To find the number divide 13572 by 87

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$$\begin{array}{r}
 00156 \\
 87 \overline{) 13572} \\
 \underline{0} \\
 13 \\
 \underline{0} \\
 135 \\
 \underline{87} \\
 487 \\
 \underline{435} \\
 522 \\
 \underline{522} \\
 0
 \end{array}$$

∴ To make 13601 exactly divisible by 87, 29 is subtracted from 13601

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Exercise 3F

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OBJECTIVE QUESTIONS

1.

Solution

The smallest whole number is 0

The option (b) is the correct answer

2.

Solution

(a) 1018

	0	1	1	3	1	1
9	1	0	1	8	0	0
-	0					
	1	0				
-		9				
	1	1				
-		9				
		2	8			
-		2	7			
			1	0		
				9		
					1	0
						9
						1

\therefore 1018 is not exactly divisible by 9

(b) 1026

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	0	1	1	4	0	0
9	1	0	2	6	0	0
-	0					
	1	0				
-		9				
		1	2			
-			9			
			3	6		
		-	3	6		
				0	0	
			-		0	
					0	0
				-		0
						0

∴ 1026 is exactly divisible by 9

(c) 1009

	0	1	1	2	1	1
9	1	0	0	9	0	0
-	0					
	1	0				
-		9				
		1	0			
-			9			
			1	9		
		-	1	8		
				1	0	
			-		9	
					1	0
				-		9
						1

∴ 1009 is not exactly divisible by 9

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(d) 1008

	0	1	1	2	0	0
9	1	0	0	8	0	0
-	0					
	1	0				
-		9				
		1	0			
-			9			
			1	8		
		-		1	8	
				0	0	
			-		0	
					0	0
			-			0
						0

\therefore 1008 is exactly divisible by 9

Here 1008 is the least number of 4 digits.

Hence 1008 is exactly divisible by 9

Option (d) is the correct answer

3.

Solutions

(a) 999980

RS Aggarwal Solutions for Class 6 Maths Chapter 3 – Whole Numbers

		0	6	2	4	9	8	7	5
1	6	9	9	9	9	8	0	0	0
-	0								
	9	9							
-	9	6							
	3	9							
-	3	2							
	7	9							
-	6	4							
	1	5	8						
-	1	4	4						
	1	4	0						
-	1	2	8						
	1	2	0						
-	1	1	2						
		8	0						
-		8	0						
		0							

Hence 999980 is exactly divisible by 16

(b) 999982

RS Aggarwal Solutions for Class 6 Maths Chapter 3 – Whole Numbers

		0	6	2	4	9	8	8	7
1	6	9	9	9	9	8	2	0	0
	-	0							
		9	9						
	-	9	6						
		3	9						
		-	3	2					
			7	9					
			-	6	4				
				1	5	8			
			-	1	4	4			
				1	4	2			
			-	1	2	8			
				1	4	0			
			-	1	2	8			
				1	2	0			
			-	1	1	2			
						8			

Hence 999982 is not exactly divisible by 16

(c) 999984

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		0	6	2	4	9	9	0	0
1	6	9	9	9	9	8	4	0	0
	-	0							
		9	9						
	-	9	6						
		3	9						
		-	3	2					
			7	9					
			-	6	4				
				1	5	8			
				-	1	4	4		
					1	4	4		
					-	1	4	4	
						0	0		
						-	0		
							0	0	
							-	0	
								0	

Hence 999984 is exactly divisible by 16

(d) 999964

RS Aggarwal Solutions for Class 6 Maths Chapter 3 – Whole Numbers

		0	6	2	4	9	7
1	6	9	9	9	9	6	4
	-	0					
		9	9				
	-	9	6				
		3	9				
		-	3	2			
			7	9			
			-	6	4		
			1	5	6		
			-	1	4	4	
				1	2	4	
				-	1	1	2
					1	2	

Hence 999964 is not exactly divisible by 16

Hence the largest 6 digit number 999984 is exactly divisible by 16

Option (c) is the correct answer

4.

Solution

To find the least number which is subtracted from 1004 to get a number exactly divisible by 12

First, we need to divide 1004 by 12

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			0	0	8	3	6	6
1	2	1	0	0	4	0	0	
-	0							
		1	0					
-		0						
		1	0	0				
-		9	6					
			4	4				
		-	3	6				
			8	0				
		-	7	2				
			8	0				
		-	7	2				
								8

Since the remainder is 8.

8 should be subtracted from 1004 to get a number exactly divisible by 12

That implies $1004 - 8 = 9996$

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			0	4	0.	9	0
1	1		4	5	0.	0	0
	-	0					
			4	5			
	-	4	4				
			1	0			
		-		0			
			1	0	0		
		-		9	9		
					1	0	
				-		0	
					1	0	

∴ 450 is not divisible by 11

(b) 451

			0	4	1.	0	0
1	1		4	5	1.	0	0
	-	0					
			4	5			
	-	4	4				
			1	1			
		-	1	1			
				0	0		
			-		0		
					0	0	
				-		0	
						0	

∴ 451 is exactly divisible by 11

(c) 460

RS Aggarwal Solutions for Class 6 Maths Chapter 3 – Whole Numbers

			0	4	1.	8	1
1	1		4	6	0.	0	0
	-	0					
			4	6			
	-	4	4				
			2	0			
		-	1	1			
			9	0			
			-	8	8		
				2	0		
			-	1	1		
						9	

∴ 460 is not exactly divisible by 11

(d) 462

			0	4	2.	0	0
1	1		4	6	2.	0	0
	-	0					
			4	6			
	-	4	4				
			2	2			
		-	2	2			
			0	0			
		-		0			
				0	0		
		-			0		
						0	

∴ 462 is exactly divisible by 11

Here both 451 and 462 are divisible by 11

Since we want nearest whole number to 457

Hence 462 is the nearest whole number to 457 which is divisible by 11

Hence option (d) is the correct answer

RS Aggarwal Solutions for Class 6 Maths Chapter 3 – Whole Numbers

7.

Solution

Number of whole numbers is calculated as

$$= (1203 - 1018) - 1$$

$$= 185 - 1$$

$$= 184$$

Hence the whole numbers between 1018 and 1203 are 184

Hence option (c) is the correct answer

8.

Solution

Here

Divisor is 46

Quotient is 11 and

Remainder is 15

To find the Dividend

$$\text{Dividend} = \text{Divisor} \times \text{Quotient} + \text{Remainder}$$

$$= 46 \times 11 + 5$$

$$= 506 + 15$$

$$= 521$$

Hence 521 is the correct answer

Option (b) is the correct answer

9.

Solution

Here given numbers are

$$\text{Dividend} = 199$$

$$\text{Quotient} = 16$$

$$\text{Remainder} = 7$$

Using division algorithm we have

$$\text{Dividend} = \text{Divisor} \times \text{Quotient} + \text{Remainder}$$

$$199 = \text{Divisor} \times 16 + 7$$

$$199 - 7 = \text{Divisor} \times 16$$

$$192 = \text{Divisor} \times 16$$

$$\text{Hence Divisor} = 192 \div 16$$

RS Aggarwal Solutions for Class 6 Maths Chapter 3 – Whole Numbers

			0	1	2	0	0
1	6		1	9	2	0	0
	-	0					
			1	9			
	-	1	6				
			3	2			
		-	3	2			
				0	0		
			-		0		
					0	0	
				-		0	
						0	

∴ 12 is the correct answer

Option (c) is the correct answer

10.

Solution

Let the unknown number be X

To find the X

We have

$$7589 - X = 3434$$

$$X = 7589 - 3434$$

$$= 4155$$

∴ 4155 is the correct answer

Option (c) is the correct answer

11.

Solution

By using distributive law of multiplication over subtraction we get

$$587 \times 99 = 587 \times (100 - 1)$$

$$= 587 \times 100 - 587 \times 1$$

$$= 58700 - 587$$

$$= 58113$$

Option (c) is the correct answer