CHRIST KING HR. SEC SCHOOL, KOHIMA
CLASS - 5
Subject: Mathematics 1st Term 2020

2. Addition , Subtraction and its Application.

Exercise 2.1

1. Rewrite in column using place value and add.

a) 5087+26542

26542
+5087
31629

e) 54567+45765+12635

54567
45765
+12635
112967

i) 108162+59346+18992

108162
59345
+18992
186500

2. Subtract. Check your answer with addition.

a) 8765-2984

8765 -2984
5781 Check
answer 5781
+2984 8765

b) 93542-78645

93542
- 78645
14897

Check answer
14897
+78645
93542

3. Fill in the boxes.

a)
$$\begin{array}{r} 2\,\boxed{3}\,4\,5\,6 \\ +\ \boxed{5}\,8\,\boxed{5}\,\boxed{5}\,\boxed{7} \\ \hline 8\,2\,0\,2\,3 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 7\,\boxed{7}\,7\,\boxed{2}\,\boxed{6} \\ -\ 1\,5\,\boxed{5}\,4\,6 \\ \hline \boxed{6}\,2\,2\,8\,0 \\ \hline \end{array}$$

Exercise 2.2

Solve using compensation.

1. a) 21 + 37

21 (subtract 1 to make 21 as 20 and) 20
+37 (add 1 to make 37 as 38) +38
58 (add and subtract with same no. 58(same answer)

c) 39+63

39 (+1)→ 40
+63 (-1)→ +62
102 102

f) 47 + 86

47 (+3)→ 50
+86 (-3)→ +83
133 133

2. a) 56 – 38

56 (+4)→ 60
-38 (+4)→ -42
18 18

c) 97 – 29

97 (+ 3) → 100
-29 (+3) → - 32
68 68

e) 84–39

84 (-4)→ 80
-39 (-4)→ -35
45 45

h) 64–42

64 (-4)→ 60
- 42 (-4)→ -38
2222

Exercise 2.3

1. **Decide whether there is a profit or loss in each case with the help of a bar diagram. Then solve.**

b) A bag

S.P. = -₹ 319
₹ 10 → Loss

since C.P.>S.P. it is loss

d)A bat

cost price(C.P.)= ₹286 **,** Selling price(S.P.)=₹400 S.P.= ₹ 400

C.P.= -₹ 286
₹114 → profit

since S.P.>C.P. it is a profit**.**

2. Find out the profit or loss in each of these. You may use diagrams if you wish.

	Cost price	**Selling price**	**Profit/loss**	**Amount**
(a)	₹ 2,090	₹ 2,100	C.P.<S.P.=Profit	₹2100-₹2090=₹10
(b)	₹ 8,395	₹ 8,935	C.P.<S.P.=Profit	₹8935-₹8395=₹540
(c)	₹ 14,060	₹ 14,600	C.P.<S.P.=Profit	₹14600-₹14060=₹540
(d)	₹ 9,319	₹ 9,139	C.P.>S.P.=Loss	₹9319-₹9139=₹180
(e)	₹ 11,190	₹11,865	C.P.<S.P.=Profit	₹11865-₹11190=₹675

3.First find the final cost of each item. Then calculate profit or loss using diagrams if you wish.

	Cost price	**Overheads**	**Final cost (CP + Overheads)**	**S.P**	**Profit/Loss amount**
(a)	₹ 645	₹ 80	₹ 725	₹ 800	₹800-₹725=₹75 profit
(b)	₹ 909	₹ 162	₹ 1,071	₹ 1,235	₹1235-₹1071=₹164 profit
(c)	₹ 2100	₹ 395	₹ 2,495	₹ 2,300	₹2495-₹2300=₹195 loss
(d)	₹ 7213	₹ 520	₹ 7,733	₹ 9,818	₹9818-₹7733=₹2085 profit
(e)	₹ 9127	₹ 2061	₹ 11,188	₹ 10,050	₹11,188-₹10,050=₹1,138 loss

4. Solv
e a.

C.P= ₹ 3,500, S.P=₹
2,750 3500
- 2750
750

Since C.P.>S.P. it's a loss of ₹ 750

b.

C.P= ₹ 3,250

Spends = ₹ 500

Total C.P. = ₹3,250+ ₹500=₹ 3,750

S.P.= ₹ 4,000
4000
-3750
250

Since C.P. < S.P. it's a profit of ₹ 250

c.

C.P. = ₹ 517

Spend= ₹ 575
575
- 517
58

Since C.P. < S.P. it's a profit of ₹ 58.

d.

C.P. = ₹ 9,390

S.P. = ₹ 11,500

11500
- 9390
2110

The loss is ₹ 2,110.

e. C.P.= ₹ 5,380
Spend= ₹ 1,840

Total C.P. = ₹ 5,380+ ₹ 1,840= ₹ 7,220 S.P. = ₹ 8,000

8000
-7220
780

Since C.P. <S.P. it's a profit of ₹ 780

Exercise 2.4

1. Find the selling price or cost price as required with the help of a model.
   a. Bag

   Cost price = ₹ 315
   Loss = ₹ 38

   Selling price =?
   Cost price – Loss
   =?

   ₹ 315
   - ₹ 38
   ₹277

   b. Sunglass

   Selling price = ₹ 690 Loss= ₹ 57

   Cost price =?

   Selling price + Loss =?

   ₹ 690
   +₹ 57
   ₹ 747

   c. Toy phone

   Cost price = ₹ 7880 Profit = ₹ 1090

   Selling price =?
   Cost price +profit
   =?

₹ 7880
+₹ 1090
₹ 8970

d. Camera

Selling price = ₹ 12965 Profit = ₹ 4387

Cost price =?

Selling price – profit =?

₹ 12965
-₹ 4387
₹ 8578

2. Complete the table.

	Selling price	**Profit**	**Loss**	**Cost price**
(a)	₹ 2,385	₹ 195	----	₹ 2,190(-)
(b)	₹1,900	----	₹ 628	₹ 2,528(+)
(c)	₹8,630	----	₹ 1,020	₹ 9,650(+)
(d)	₹74,365	₹ 2,315	----	₹ 72,050(-)

3. Complete the table.

	Cost price	**Profit**	**Loss**	**Selling price**
(a)	₹1,095	----	₹ 89	₹ 1,006(-)
(b)	₹3,586	₹ 369	----	₹ 3,955(+)
(c)	₹9,980	----	₹ 351	₹ 9,629(-)
(d)	₹15,381	₹ 1,395	----	₹ 16,776(+)

4. a)

Selling price = ₹ 1280 Loss = ₹ 590

S.P. + Loss =?

₹ 1
280 +₹
590
₹ 1870

b)

Cost price = ₹ 1870 Profit = ₹ 3200

₹ 15290
+₹ 3200
₹ 18490

Selling price = ₹ 18,490

c)

Selling price = ₹ 1648

Profit = ₹ 120

Selling price – profit =?

₹ 164

8 -₹

120

₹ 1528

Cost price = ₹ 1528

Exercise 2.5

1. a) Newspaper printed = 33,530 copies

   Newspaper distributed = 28,395 copies

   Newspaper left = 33,530 – 28,395

   = 5,135 copies

   b) The milometer on a van

   October = 53,811 Km

   After three months

   December = 84,209 Km

   The milometer from Oct. to Nov. = 53,811 Km + 21,614 Km = 75,425 Km

   The month of Dec. = 84,209 Km – 75,425 Km

   = 8,784 Km

   c) Sushi's car = 25,384 Km

   Suraj's car = 30,001 Km

   30,001

   -25,384

   4,617

   Sushi's car has 4,617 Km less then Suraj's car.

   d)Mr.Shenoy had ₹ 3,25,765

   He borrowed ₹ 1, 12,700

   The cost of new car = ₹ 3, 25,765

   +₹1, 12,700

   ₹4, 38,465

   The cost of new car = ₹ 4, 38,465

   e)Sriram total tournament = 75

   Total price = ₹ 2, 25,000

   Prize money per tournament = 2, 25,000 ÷ 75

= ₹ 3,000

He earns ₹ 3000 per tournament.

f) School needs = 24,510 pencil
Boxes of 25 = 24,510 ÷ 25
= 980.4 boxes

g) Dolls = 20 boxes
Teddy bears = 25 boxes
Each boxes = 24 toys
Dolls = 20 X 24 = 480 dolls
Teddy bears = 25 X 24 = 600 teddy bears
Total no. of toys in toy store = 600 + 480
= 1,080 toys

Exercise 2.6

Solve. Use models to help you.

1. a) 612 + 336 = 948(-) b) 7394 + 5248 = 12642(-)

   c) 2085 - 847 = 1238(+) d) 10973 – 9162 = 1811(+)
   – 26409 = 23175(-

   e) 9408 – 8270 = 1138(-) f) 49584) _____

2. a) 18345 + 1279 = 19624(-)

   b) 59052 - 23146 = 35906(+)

   c) 83196 – 71774 = 11422(-)

   d) 29184 + 10948 = 40132

3. a) Khalid board game cost = ₹

   501 He has ₹ 479

   =₹501

   -₹ 479

   ₹ 22

   He still needs ₹ 22 more.

   b) Hashita stamp album hold = 1500 stamp

She paste = 785 stamps

Space left = 1500
- 785
715stamps

c) Library has lent 1785

Books left in library = 7816

Total books in library = 7816 + 1785

= 9601 books

d) Art exhibition had 915 piece of
Art Unsold = 211 pieces
Sold pieces = 915 – 211
= 704 pieces

3.Multiplication, Division and its Applications.

Exercise 3.1

1. Multiply.
   a) 5986 X 42
   5986
   X42
   11972
   +23944
   241412
   c) 8645 X 38
   8645
   X38
   66160
   +25935
   325510

f) 9752 X 372

9752
X372

19504
68064
+29256

3625744

i) 403 X 809

403

3627
000
+3224

326027

l) 60005 X 908

60005
X
908

480040
00000
+ 540045

54484540

2. Calculate only till you **see the pattern**. Then fill in the according to the pattern.

a) 131 X 11 = 1441
131 X 111=14541
131 X 1111=145541
131 X 11111= 1455541
131 X 111111=14555541

b) 1X9+2=11
12X9+3=111
123 X 9 + 4=1111
1234 X 9 + 5=11111
12345 X 9 + 6=111111

Exercise 3.2

1. Divide and check your answer.

a) 12686 ÷ 51

```
      248                    check
51 | 12686                   248
   - 102                     X 51
     248                     248
   -  204                   +1240
      446                   12648
    - 408                    + 38
      38                    12686
```

c) 86243 ÷ 89

```
      969                    check
89 | 86243                   969
   -801                      X89
     614                    8721
   - 534                   +7752
     803                   86241
    -801                     + 2
      2                    86243
```

e) 49903 ÷ 72

```
      693                    CHEC
72 | 49903                   K
   -432                      693
     670                     X 72
   - 648                    1386
     223                   +4851
    -216                   49896
      7                      + 7
                           49903
```

g) 18468 ÷ 22

```
       839                CHECK
    ________
22 ) 18468                  839
    -176                   X 22
    ________              ______
       86                 1678
     - 66                +1678
    ________             ______
      208                18458
    - 198                  +10
    ________              ______
       10                18468
```

i) 46943 ÷ 58

```
     809                  CHECK
    _______
58 ) 46943                  809
   - 464                    X58
   _______                 ______
      543                  6472
    - 522                 4045
    _______               ______
       21                 46922
                            +21
                          ______
                          46943
```

l) 19687 ÷ 35

Division	CHECK
562	562
35) 1968 7	X35
- 175	2810
218	+1686
- 210	19670
87	+17
-60	19687
17	

EXERCISE 3.4

1. The problems given bellow have the answers but not the question. Write the question the fits the answer.
   a) Ans; How much money did Dhruv get?
   b) Ans; How much more does the television cost than the washing machine?
   c) Ans; How much did it cost each student?
   d) Ans; How many packets were made?

EXERCISE 3.5

Solve with the help of models.

1. Ans.; Shirin can read in 1 hour ⟶ 27 pages
   In 7 hours she reads ⟶

27	27	27	27	27	27	27

   =27X7=189

2. Ans; In a month Shagufta's mother drives
   =23+23+23+23+23+23+23+23+23+23+23+23+23+23+23+23+
   23 Or = 23 X 17
   = 391
   Shagufta's mother drives 391 Km in a month.

3. Ans; An office paid for new desk.

₹ 6260

   Each new desk costs.

₹ 6260				
?	?	?	?	?

   =6260÷5=₹1252

   The new desk cost ₹ 1252 each.

4. A newspaper delivery man delivers =

72 newspaper

If he delivers 3 papers to each house=

72 newspaper		
?	?	?

=72÷3=24

He delivers it to 24 houses.

5. Anaida finishes her homework on Sunday=

45 minutes

Anaida finishes her homework on Saturday=

45	45	45	45

Time taken by Anaida to finish her homework on Sunday and Saturday=45 X 5 = 225 minutes.

She spends 225 minutes in her homework.

5. MULTIPLES.

EXERCISE 5.1

1. Use the number line to find the common multiples of 3 and 4.

Ans; 12, 24

2. Circle the multiples of 4. Put a square around the multiples of 5. List the common multiples of 4 and 5.

1	2	3	(4)	5	6	7	(8)	9	10
11	(12)	13	14	15	(16)	17	18	19	(20)
21	22	23	(24)	25	26	27	(28)	29	30
31	(32)	33	34	35	(36)	37	38	39	(40)

The multiples of 5 are 5, 10, 15, 20, 25, 30, 35, and 40.
Common multiples of 4 and 5 are 20, 40.

EXERCISE 5.2

1. First find 6multiples of these numbers and then find 3 common multiples. Finally, find the LCM.
   a) 6, 9
      Common multiples= 18, 36, 54….
      LCM= 18
   b) 5, 10

Common multiples= 10, 20, 30, 40, 50…..
LCM= 10

c) 3, 6
Common multiples= 6, 18, 24, 36, 42…..
LCM= 6

d) 3,2,4
Common multiples= 12, 24,
36….. LCM= 12

2. Use the number line to find the common multiples and lowest common multiple of 3 and 5.
Ans; 15

3. These number has already been factorized for you. Find the LCM of the pair given.
a) 8, 16
LCM of 8 = 2×2×2
16=
2×2×2×2
LCM of 8, 16= 2×2×2×2=16
c) 8, 10
LCM of 8= 2×2×2
10= 2×5
LCM of 8, 16=2×2×2×5=40
f) 25, 16
LCM of 25= 5×5
16=2×2×2×2
LCM of 25 and 16 is 400

4. Find the LCM of these numbers using prime factorization.
a) 16, 24
Prime factorization of 16=
2×2×2×2 Prime factorization of
24= 2×2×2×3
=2×2×2×2×3= 48

c) 10, 18

Prime factorization of 10= 2×5

Prime factorization of 18= 2×3×3

= 2×5×3×3= 90

e) 25, 30

Prime factorization of 25= 5×5

Prime factorization of 30= 5×2×3

= 5×5×2×3= 150

g) 10, 15, 20

Prime factorization of 10= 5×2

Prime factorization of 15= 5×3

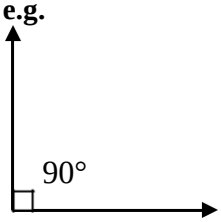
Prime factorization of 20= 5×2×2

= 5×2×2×2×3= 120

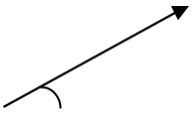
10. GEOMETRY BASICS

TYPES OF ANGLES

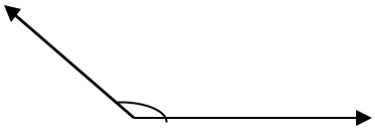
1. **Right Angles;** Angles that are exactly 90° are called right angle**. e.g.**



2. **Acute Angles;** Angles that are less than right angle are called acute angles.
   E.g.

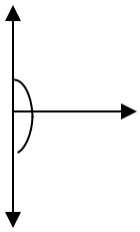


3. **Obtuse** [redacted]t are more than a right angle are called obtuse angle.
   E.g.



4. **Straight Angles;** Angles that have two right angles next to one another, i.e,90+90=180°, they form a straight angle.

E.g.



Exercise 10.1

Study the above definition and try to do this exercise.

Exercise 10.2

1. What is the measure of these angles?
   a. 70° b) 116° c) 20° d) 56° e) 90° f) 150°
2. Measure these angles with your protractor. Then state what type of angles they are.
   a) 120°- Obtuse angle b) 45°- Acute angle c) 170°- Obtuse angle
3. Use a protractor to measure the angles.

   AOB = 60° AOE = 120° AOG = 150° AOB = 180°

   BOD= 90° BOF = 45°
   BOG = 30°
   BOC = 125°

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