**SECOND TERM E NOTES**

**SUBJECT: MATHEMATICS**

**CLASS: BASIC FOUR**

**WEEK TOPIC**

1. **multiplication of whole number by two digit number**
2. **Square of 1 and 2- digit number**
3. **Division of 2 digit or 3-digit by number up to 9 with or without a remainder**
4. **Common multiples of numbers**
5. **Factors of numbers: HCF**
6. **Estimation**
7. **Money: Addition and subtraction of money**
8. **Money: multiplication and division of money by a whole number**
9. **Profit and loss**
10. **Revision**

**WEEK ONE**

**MULTIPLICATION OF NUMBERS BY 2-DIGIT NUMBERS**

***Example* 1 *multiply 25 by 12***

***Method*  1: column form method 2: Expanded form**

**2 5 25 x 12 = 25 x (10 = 2)**

**x 1 2 = (25 x 10) = (25 x 2)**

**2 5 0 (25 x 10) = 250 + 50**

**+ 5 0 (25 x 2) = 300**

**3 0 0**

**EXERCIES 1: Multiply the following**

1. **53 x 50 11. 84 x 10**
2. **97 x 10 12. 96 x 40**
3. **67 x 50 13. 67 x 50**
4. **87 x 20 14. 64 x 30**
5. **57 x 40 15. 64 x 40**
6. **56 x 10 16. 95 x 20**
7. **86 x 20 17. 84 x 50**
8. **99 x 50 18. 75 x 10**
9. **89 x 30**
10. **75 x 40**

**EXERCISE 2: multiply the following**

1. **89 x 46**
2. **45 x 37**
3. **56 x 17**
4. **88 x 32**
5. **36 x 35**
6. **78 x 18**
7. **76 x 26**
8. **29 x 27**
9. **79 x 49**
10. **75 x 46**

**WEEK TWO**

**SQUARES AND SQUARE ROOTS OF NUMBERS ( 1- digit and 2 – digit numbers)**

|  |  |
| --- | --- |
| Example: 1: find 22 = 4 2  =( 2 x 2) + ( 4 x 4)  = 4 + 16  = 20 | **Example 2: find 42 - 22**  **= (4x4) – (2 x 2)**  **= 16 – 4**  **= 12** |
| **Example 3: find 32 + 32**  **= (3 x 3) + (3 x 3)**  **= 9 + 9**  **= 18** | **Example 4: 102 - 42**  **= (10 x 10) – (4 x 4)**  **= 100 – 16**  **= 84** |

**Exercise 1**

**Find the value of:**

1. **42 + 62**
2. **52 – 22**
3. **5­­­­­2 + 72**
4. **102 – 52**
5. **82 + 102**
6. **82 – 62**
7. **22 x 52**
8. **32 x 42**
9. **42 x 32**
10. **52 x 22**
11. **62 x22**
12. **22 x 32 x 52**
13. **22 x 32 x 52**
14. **32 x 22 x 52**

**WEEK THREE**

**DIVISION**

**Division of 2-digit nad 3-digit numbers by numbers up to 9 without remainder**

**Example 1: 78 ÷ 6**

**T U**

**1 3**

**6 7 8**

**- 6 0 (1 ten x 6)**

**1 8**

* **1 8 (6 units x 3)**

**0**

**Example 2: 82 ÷ 3**

**T U**

**2 7**

**3 8 2**

**\_ 6 0 (2 tens x 3)**

**2 2**

**\_ 2 1 (7 units x 3)**

1. **(Remainder)**

**Thereofor, 82÷3 = 27 remainder 1**

Exercise

1. Divide 70 by 5
2. Divide 78 by 6
3. Divide 304 by 4
4. Divide 981 by 9
5. Divide 205 by 3
6. Divide 420 by 9
7. A box hiolds 3o tins. How many boxes can be filled with 810 tins?
8. One packet contains 10 pencils. How many packets do 470 pencil fill?
9. How many minutes are there in720 seconds
10. The product of three numbers is 540. The first number is 5 and the second number is 9. What is the third number?

**WEEK FOUR**

**LEAST COMMON MULTIPLES ( LCM)**

**Example 1:**

**Find the least common multiples of 2 and 3**

**The multiples of 2 are: 2**, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

**The multiples of 3** are: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36

Thus the common multiples of 2 and three are 6, 12, 18 and 24

The smallest of these multiples(i.e. the least) is 6

We say that the least common multiples of 2 and 3 is 6.

That is L.C.M of 2 and 3 is 6

**EXERCISE**

**Find the by listing the multiples of:**

1. 2 and 5
2. 3 and 4
3. 3 and 5
4. 4, 2 and 6
5. 2 and 7
6. 2 and 12
7. 3 and 7
8. 3 and 12
9. 2, 3 and 5
10. 2 and 10
11. 2, 4 and 6
12. 3 and 15
13. 4 and 7
14. 4 and 7

**WEEK FIVE**

**HIGHEST COMMON FACTOR (HCF)**

The product of 2 and 3 is; 2 x 3 = 6

2 and 3 are factors of 6

**The factors of a number are numbers that divide the number without a remainder**

**EXAMPLE**

**Find the common factors of 24 and 36**

24 = 1 x 24 36 = 1 x 36

= 2 x 12 = 2 x 18

= 3 x 8 = 3 x 12

= 4 x 6 = 4 x 9

= 6 x 6

**Factors of 24 are**: 1, 2, 3, 4, 6, 8, 12, 24

Factors of 36 are: 1, 2, 3, 4, 6, 9, 12, 18, 36

Common factors of 24 and 36 are: 1, 2, 3, 4, 6, 12

The highest common factor is 12.

**EXERCISE**

**Find the HCF of:**

1. 6 and 9
2. 6 and 27
3. 21 and 14
4. 12 and 18
5. 6 and 21
6. 6 and 15
7. 24 and 60
8. 18 and 30
9. 14 and 16
10. 6 and 10

**WEEK SIX**

**ESTIMATION**

**Rounding off decimals to the nearest whole number**

**Rules for rounding off decimals to the nearest whole number**

When the rounding off decimals to the nearest whole number, look at the digit in the tenths place.

1. If this digit is 5 or grater than 5, replace the digits after the decimal point by zero and add 1 to the digit in the units place
2. If this digit is less than 5, relce the digits after the decimal point by zero.

**Note: ‘≈’ means ‘is approximately equal to’**

**Example:** round off the following decimal numbers to the nearest whole numbers.

6.7 ≈ 7 to the nearest whole number

6.3 ≈ 6 to the nearest whole number

17 ≈20 to the nearest ten

**EXERCISE 1.**

Write to the nearest whole number

1. 4.7
2. 1.1
3. 7.9
4. 8.6
5. 0.9
6. 13.2

Exercise 2

Write to the nearest ten

1. 34.7
2. 26.7
3. 35.9
4. 23.6
5. 46.8
6. 48.9
7. 34.5
8. 23.4

**WEEK SEVEN**

**Money**

**Addition of money**

**Example:** find the sum of N4.36, N3.79 and N4.82

N K

4. 36

**+** 3. 7 9

+ 4. 8 2

**12. 9 7**

**EXERCISES**

**Add up**

1. **N56.00, N24.70 and N32.55**
2. N32.20, N174.30 and N132.30
3. N91.00, N152.10 and N184.20
4. N241.80, N378.35 and N29.46
5. Fin the sum, of N168.00 and N276.00
6. Find the sum of N128.10, N78.30 and N8.05
7. I have N1000 in my pocket and my father gasve me N174.20 more. How much do I have altogher?

**Subtraction of money**

**Example 1**

**What is the difference between N167.50 and N345.00?**

N K

345.00

-167. 50

177.50

**EXERCISE 2**

1. Find the difference between N406.60 and N322.20
2. Find the different between N270 and N162.30
3. Subtract N236.44 from N475.00
4. I have N150.00 and I bought a spoon for N85. How much is my change?
5. How much more is N147.50 greater than N112.80
6. How much more is N36.00 than N278.00

**WEEK EIGHT**

**PROBLEM ON MULTIPLICATION OF MONEY**

EXAMPLE

Find the cost of 3 books at N91.55 each.

Solution

N91. 55

× 3

N274.65

**EXERCISE**

1. N5.52 x 4
2. N4.75 x 6
3. N4.75 x 6
4. N5.91 x 8
5. N12.37 x 6
6. A bag of salt costs N585.40. how much will I pay for 5 bags?
7. What is the cost of 6 meters of while poplin at N212. 85 per meter?
8. Find the cost of 7 chairs if one chair costs N423.50

**DIVISION OF MONEY**

**Example**

Four children were given n624.40 to share equally. how mcuch will eachof them**. Get?**

**Solution**

Note that N624.00 = 62400k

= N624.00 x 4

= N156.10

**EXERCISES**

1. Divide N1.68 by 4
2. Divide N2.25 by 9
3. Divide N44.80 by 8
4. Divide N11.76 by 7
5. 610k by 5
6. Five boys are to share N615.55 equally. How much will each receive?

**WEEK TEN**

**PROFIT AND LOSS**

**Example 1**

A man bought a leather bag for N350.00 and solt it for N360.00. will he have more mponey or less money with him?

Solution

Selling price = N460.oo

Cost price = - N350.00

Profit(gain) =  **N110.00**

**Note: profit or gain =** selling price – cost price

Example 2

If a lady bought a wrist watch for N800 and sold it for N600. Will he have money or less money with her?

Solution

The selling is price is less than. Therefore, she will have less money with her. That is, she sold at a loss.

Cost price of wrist watch = N800.00

Selling price = N600.00

Loss N200.00

EXERCISE

1. The cost price of an article is is N450.30 and the selling price is N510. Find the profit or loss.
2. Mallam jimoh bought a meter of cloth for N155.50 and sold it N147.75, what is the gain or loss?
3. A car battery cost N3050. And it was sold for N 2895. What is the loss on the selling price