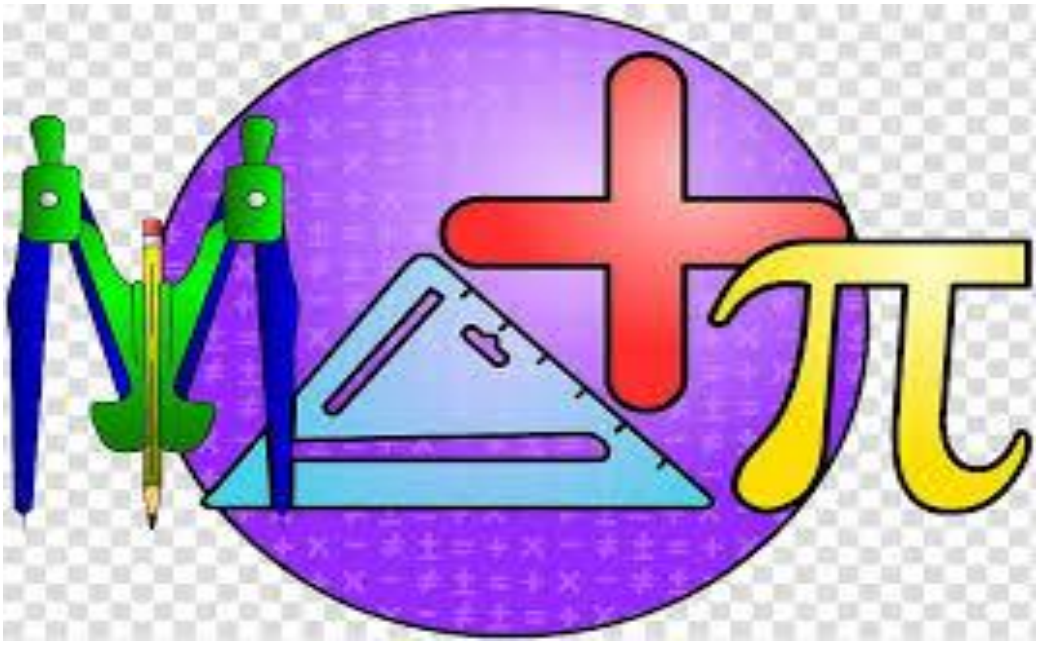
St Fatima Language Schools®
Al Hegaz

The Vision of the School: Distinct Environment for Refined Education

St. Fatima Language Schools



Work sheets Primary 6

2026/2027

First term

Supervisor :Maha Ahmed

Name : ……..

Class : ……

Unit 1

Sheet (1)

Any number is divisible by another if the remainder of the division operation = zero

Divisibility by 2 :

If its ones digit is even (0 , 2 , 4 , 6 , 8)

Ex : 436 is divisible , 883 is not divisible

Divisibility by 3

If the sum of its digits is divisible by 3 (multiple of 3)

Ex : 582 is divisible , 934 is not divisible

Divisibility by 4

If the ones and the tens of the number is divisible by 4 or the number ends by 00

Ex : 5, 124 and 300 are divisible , 3453 is not divisible

Divisibility by 5

If the ones digit ends by 0 or 5

40 is divisible , 23 is not divisible

Divisibility by 6

If the number is divisible by 2 and 3

Ex : 102 is divisible , 375 is not divisible

Divisibility by 10

If the ones digit is 0

Ex : 250 is divisible , 306 is not divisible

1) <u>Use the following numbers to complete :</u> 335 , 532 , 250 , 6679 , 702 , 1000

a) The numbers which are divisible by 2 :……

b) The numbers which are divisible by 3 :……

c) The numbers which are divisible by 4 :……

d) The numbers which are divisible by 5 :……

e) The numbers which are divisible by 6 :……

f) The numbers which are divisible by 10 :……

2) <u>Complete the table :</u>

Divisible by

the number	2	3	4	5	6	10
45						
887						
9003						
38						
456						
120						
900						

3) Complete

a) 36 ÷5 = 7 , R =1 so , 36 is …….. by 5

b) All even numbers are divisible by ……

c) 3 is factor of 12 so , …… is divisible by ……..

d) 24 is multiple of 4 , so …….. is divisible by …….

e) 652 is not divisible by 3 because ……

f) 30 is divisible by 6 because ……

g) …….. is the smallest 2 digit number divisible by 6

h) Any number is divisible by itself except ……

4) Choose the right answer :

a) …… is divisible by 2 and 3 (18 , 33 , 20 , 9)

b) 26 is divisible by ……. (4 , 6 , 3 , 2)

c) …… is divisible by 4 (54653 , 7593 , 836 , 4414)

d) ……. is divisible by 10 (433 , 0 , 200 , 508)

e) 7856 is divisible by 5 (false , right)

f) 624…… is divisible by 3 (1 , 2 , 3 , 4)

g) Which of the following is not divisible by 5 …… ….. (5685 , 36690 , 287 , 1000)

Sheet (2)

*** Prime numbers less than 100 are :**

2 , 3 , 5 , 7 , 11 , 13 , 17 , 19 , 23 , 29 , 31 , 37 , 41 , 43 , 47 , 53 , 59 , 61 , 67 , 71 , 73 , 79 , 83 , 89 , 97

Notes :

- **The common factor for all numbers is 1**
- **The common multiple for all numbers is 0**
- **The prime number is a number which has only two factors : 1 and itself**
- **The smallest prime number is 2**
- **The only even prime number is 2**
- **Relatively prime numbers are numbers whose only common factor is 1**
- **The smallest odd prime number is 3**

1) Find the G.C.F and the L.C.M : (Use factor tree)

a) 15 and 20

b) 21 and 36

c) 24 and 18

d) 40 and 16

e) 25 and 45

2) <u>Find the G.C.F and the L.C.M: (Use Venn diagram):</u>

a) 8 and 6

b) 27 and 12

c) 32 and 14

d) 100 and 20

e) 7 and 11

3) Complete :

a) All prime numbers are odd except ……..

b) The number that its prime factors are 3 , 2 , 2 is ……

c) The smallest odd prime number is ……..

d) The prime number as only ……. factors

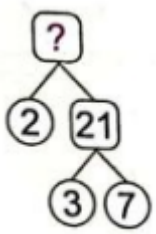
e) Prime numbers less than 20 are ……

f) The smallest two – digit prime number is ……..

g) Two numbers are relatively prime numbers if their greatest common factor is ……..

4) Choose the right answer :

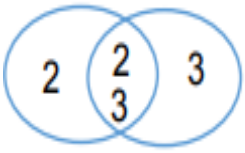
a) The missing number is …… (24 , 23 , 33 , 42)



b) The G.C.F of any two prime numbers is ……. (0 , 1 , 2 , 3)

c) The greatest common factor of 6 and 8 is …… (1 , 2 , 3 , 4)

d) From the following Venn diagram: the G.C.F of the representing numbers is ……



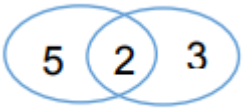
(4 , 6 , 9 , 36)

e) From the following Venn diagram: the L.C.M of the representing numbers is…….



(1 , 3 , 5 , 15)

f) The following Venn diagram represents the prime factorization of two numbers which are ……



(3 and 5 or 2 and 3 or 2 and 5 or 6 and 10)

g) Which of the following is a prime factor for 42 and 30

(2 , 5 , 6 7)

5) <u>Complete the table</u>

Numbers	**Prime factors**	**G.C.F**	**L.C.M**	**Relatively prime numbers (yes or no)**
6 , 4	6 = …… 4= ……			
9 , 10	9= …… 10= ……			
15 , 6	15= …… 6= ……			

Sheet (3)

1) Choose the right answer :

a) 10 + 35 = 5 (2 + …….) (6 , 7 , 40 , 30)

b) 18 (2+1) = ……. (18 + 36 OR 20 + 19 OR 18 + 9 OR 18 + 30)

c) The following expression represents the greatest number of bags can be made from apples and bananas respectively: (12 × 6) + (12 × 4) , then the number of all bags is …… (12 , 4 , 6 , 120)

d) The following expression represents the greatest number of bags can be made from potatoes and carrot respectively: (6 × 6) + (6 × 3) , then the total number of carrots in all bags is …… (6 , 36 , 18 , 9)

e) The following expression represents the greatest number of baskets water and juice bottles respectively: (10 × 3) + (10 × 5) , then the number of all bottles in each basket is …… (10 , 8 , 15 , 80)

2) Complete :

a) 7 x (5 + 2) = (……x ……) + (……. x ……)

b) 8 x (2 +9) = (…… x ……..) + (……. X ……)

c) …… x (……. + …….) =(8 x 5) + (8 x 3)

d) 5 x (……. + …….) = (…….. x 2) + (……..x 4)

e) ……..x (4 + 3) = (2 x ……..) + (2 x ……)

3) Karim 48 pencils and 18 crayons. What is the numerical expression of the greatest number of sets that can be made so that all sets include the same number of items?

……

……

……

4) The students collected 20 boxes of cheese and 40 bags of legumes. What is the largest number of baskets of food that can be prepared without any food left?

……

……

……

5) Samy has 6 oranges and 10 bananas. What is the largest number of bags that can be made so that all bags include the same number of items?

……

… ……

……

6) Mariam has 36 piece of pizza and 48 pieces of cake . What is the largest number of plates that can be made so that all plates include the same number of items?

……

……

……

Sheet (4)

- **when we add or subtract any two fractions with like denominators, we add or subtract the numerators with the same denominators.**

- **when we add or subtract any two fractions with unlike denominators, we change the unlike denominators into like denominators by using the L.C.M of two denominators**

1) Find the result:

a) $\frac{4}{9} + \frac{2}{9}$ = ...

b) $\frac{10}{15} - \frac{7}{15}$ = ...

c) $\frac{3}{4} + \frac{7}{12}$ = ...

d) $\frac{9}{10} + \frac{1}{3}$ = ...

e) $\frac{6}{7} - \frac{2}{14}$ = ...

2) Choose the right answer :

a) The smallest common denominator for $\frac{1}{6}$ and $\frac{4}{5}$ is ..... (30 , 6 , 60 , 12)

b) $\frac{8}{9} - \frac{5}{9}$ = ... ($\frac{3}{0}$, $\frac{13}{18}$, $\frac{1}{3}$, $\frac{2}{9}$)

c) $\frac{2}{8} + \frac{3}{8} + \frac{4}{8}$ = ... ($\frac{8}{9}$, $\frac{9}{24}$, $1\frac{3}{8}$, $1\frac{1}{8}$)

d) $1\frac{1}{11} - \frac{1}{4}$ = ... ($1\frac{7}{44}$, $1\frac{2}{15}$, $1\frac{15}{44}$, $\frac{37}{44}$)

3) Match :

a) $\frac{7}{9} - \frac{4}{18}$ $\frac{5}{11}$

b) $\frac{1}{2} + \frac{1}{16}$ $\frac{5}{9}$

c) $\frac{3}{12} + \frac{6}{12}$ $\frac{9}{16}$

d) $\frac{10}{11} - \frac{5}{11}$ $\frac{3}{4}$

4) Salma bought $3\frac{1}{2}$ kg of tomato, and $1\frac{1}{4}$ kg of onion. How much vegetables did she buy?

……

……

5) Ali bought a bottle of juice contains $1\frac{3}{4}$ liters of orange juice. He drank $\frac{2}{5}$liter of juice.

How much of juice is left in the bottle?

……

……

Revision on unit 1

1) Choose the right answer :

a) 326 is divisible by …….. (2 , 3 , 4 , 5)

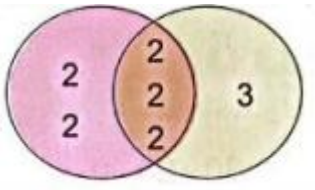
b) Bassem has 48 pens and 60 colored pencils . What is the expression that represents the total number of pens and colored pencils in each box

(12 (4 + 5) or 12 +4+5 or 12 + (4 x 5) or 12 (3+ 5))

c) The L.C.M of 8 and 10 is ……. (2 , 20 , 30 , 40)

d) $\frac{6}{8} - \frac{1}{2}$ = …….. ($\frac{1}{6}$, $\frac{1}{8}$, $\frac{5}{8}$, $\frac{1}{4}$)

e) From the Venn diagram the GCF is ……. (3 , 2 , 8 , 96)



f) $2\frac{2}{9} + \frac{5}{6}$ = …….. ($3\frac{1}{18}$, $2\frac{1}{6}$, $3\frac{7}{15}$, $3\frac{7}{9}$)

g) 6 and …… are relatively prime numbers (4 , 15 , 35 , 20)

g) A number is divisible by 12 if it is divisible by ……. (2 and 3 or 2 and 4 or 3 and 4)

2) <u>Complete :</u>

a) 15 + 24 = …….. (……..+ ……)

b) 9 is the L.CM of the two numbers 3 and …….

c) The number whose its prime factors are 3 , 2 , 5 is ……

d) Some children have 4 bottles of water , after they drink water they find the rest in the bottles are : $\frac{2}{5}$, $\frac{3}{5}$, $\frac{3}{5}$, $\frac{4}{5}$, so the number of bottles had been drunk = ……
……

e) $\frac{5}{13}$ + …… = 1

f) $\frac{5}{6}$ — $\frac{3}{5}$ = ……..

g) The prime numbers between 32 and 40 are ……..

h) If 976 = 61 x 16 , then 980 ÷ 61 = 16 , and the remainder is ……

3) Draw the factor tree for the number 28

……
……

……

4) Basma walked $2\frac{1}{2}$ km on Sunday, and $1\frac{1}{4}$ km on Monday. What distance did she walk in all?

……

……

……

5) <u>Complete : From the Venn diagram:</u>

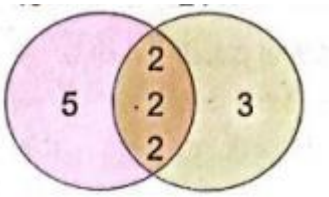
a) The two numbers represented in the Venn diagram are ……. and …….

b) The common prime factors of the two numbers are ……..

c) The L.CM of the two numbers are …….

d) The G.C.F of the two numbers are ……

e) Are the two numbers relatively prime numbers ? ……. why ? …….



6) A hospital staffed by 12 doctors and 28 nurses , find the greatest number of equal groups that can be made of doctors and nurses together .how many doctors are there in each group and how many nurses are there in each group

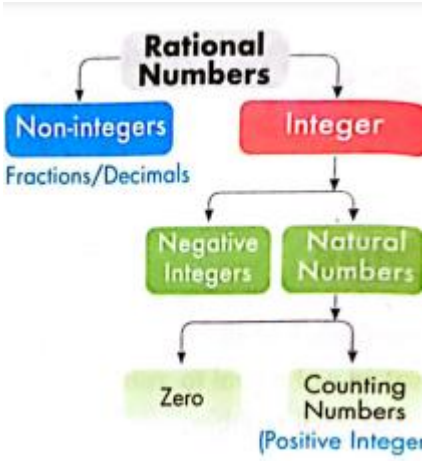
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Unit 2

Sheet (1)

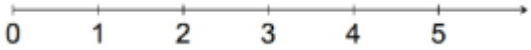


- Counting or positive numbers = 1 , 2 , 3 , 4 , ……

(numbers bigger than zero)



- Natural numbers = 0 , 1 , 2 , 3 , ……. zero and counting numbers)



- Negative numbers = -1 , -2 , -3 , -4 …….. (numbers smaller than zero)

- Integer numbers =…… , -3 , -2 , -1 , 0 , 1 , 2 , 3 , 4 , ……..

- Integer numbers = Negative integers and zero and positive integers

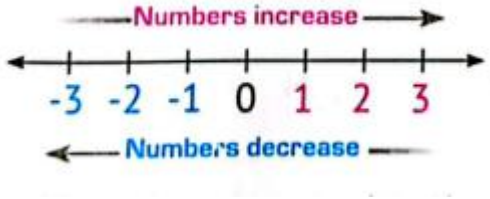
  or = Negative integers and zero and counting numbers

  or = Negative integers and natural numbers

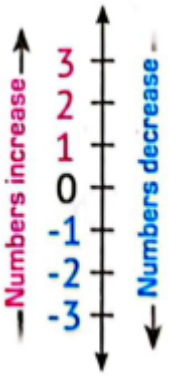
- Zero is neither positive nor negative

Representing integers on number line:

Horizontal number line:



Vertical number line:



1) <u>Write an integer to represent the situation of the following :</u>

a) The temperature of Paris City is 5 degrees below zero ……..

b) The school added 9 marks to a student for his excellence in activity…….

c) Ahmed withdrew 5000 L.E from his bank account ……..

d) Rome rises 4 meters above sea level ……..

e) The buildings' height is 90 meters ……

f) Move 5 steps back ……..

2) <u>Write the numbers indicated by the symbol</u>



……

3) Complete :

a) …… comes after -6

b) 12 comes after ……..

c) -8 is the previous of the number ……

d) …….. to next to 9

e) The smallest positive number is ……..

f) The greatest negative number is ……..

g) The opposite of 32 is ……..

h) The opposite of -16 is……

i) The opposite of 0 is ……

j) The sum of any two opposite numbers = ……

4) Choose the right answer :

a) The number zero is …… number (counting , positive , natural , negative)

b) The number of integers which lies between -3 and 3 is …..

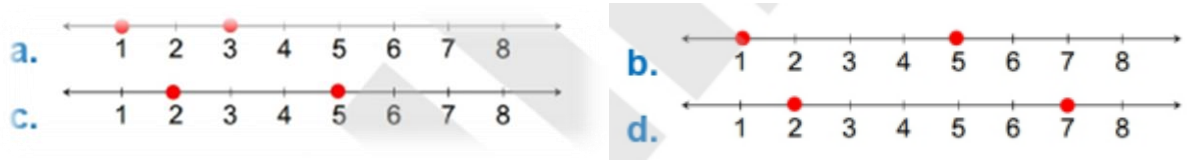
(3 , 4 , 5 , 6)

c) The number of integers on the number line = …… (0 , 1 , 100 , infinite)

d) -23 …… -22 (< , > , = , otherwise)

e) …….. is between -2 and 3 (4 , -3 , -4 , 0)

f) Which of the following represent the distance 3



g) Which of the following are opposite numbers ?

(1 , 10 or 1 , 1 or -1 , -1 or -1 , 1)

h) Which of the following is the correct statement ?

(5<2 or -2 < 5 or 2 < -5 or -2 > 5)

5) <u>Put < , > , = :</u>

a. - 3 ☐ - 7

b. 0 ☐ 8

c. 4 ☐ 3

d. - 9 ☐ 2

e. 0 ☐ - 6

f. - 2 ☐ 2

6) <u>Arrange in ascending order :</u>

a) 6 , 60 , 2 , -7 , 0

……

b) -8 , -2 , 5 , 9 , 4

……

c) -13 , -5 , -8 , -22 , 7

……

7) <u>Arrange in descending order :</u>

a) -22 , 45 , -10 , -9 , 0

……

b) 4 , -8 , 6 , 11 , -7

……

Sheet (2)

1) Classify the following numbers

Number	Counting	Natural	Integers	Rational
7				
-9				
0.45				
$\frac{7}{11}$				
$4\frac{1}{2}$				

2) Write the given rational numbers in fraction form:

a) -38

b) 8

c) 0

d) 11

e) 0.22

f) $8\frac{3}{5}$

3) Put the following numbers on the number line :

$4\frac{1}{2}$, 2.5, $-2\frac{1}{3}$, -7.25, -5.5, $7\frac{3}{4}$

……

4) Write a number that is located between each pair of numbers:

a) 1.27 and 1.28

b) $-\frac{2}{3}$ and $-\frac{1}{3}$

c) $\frac{1}{2}$ and $\frac{3}{4}$

5) Write belongs or doesn't belong:

a) -8 …… to set of natural numbers

b) 6.36 …… to set of integers

c) 0 …… to set of natural numbers

d) The additive inverse 0f 76 …… to set of natural numbers

e) $\frac{1}{6}$ …… to set of rational numbers

6) Write a subset or not a subset :

a) Set of rational numbers ……..of set of natural numbers

b) Set of counting numbers …….. of set of natural numbers

c) Set of integers…… of set of rational numbers

d) Set of natural numbers ……..of set of integers

Sheet (3)

1) Put : < , > , =:

a) 3 ..... 1.5

b) $5\frac{7}{8}$ ..... $3\frac{4}{10}$

c) -4 ..... $\frac{5}{7}$

d) 10 ..... -8

e) -6.7 .....$-6\frac{1}{2}$

2) Find the value of :

a) $|5|$ = ...

b) $|-8|$ = ...

c) $|-12.6|$= .....

d) $|-7| + |2.3|$ = ...

3) Arrange in ascending order :

$2.5\ ,\ -3.4\ ,\ |-5.3|\ ,\ -4\ ,\ |0.8|$

.....

4) Arrange in descending order :

$0.3\ ,\ -0.2\ ,\ \frac{1}{4}\ ,\ -\frac{1}{4}\ ,\ \frac{1}{2}$

.....

Revision on unit 2

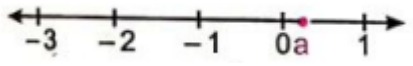
1) Choose the right answer :

a) $\frac{5}{8}$ …….. -9 (< , > , =)

b) The opposite of 6 > …… (-5 , 5 , -7 , 7)

c) -4 is to the right of …….. on the number line (-5 , 5 , 3 , -3)

d) Which of the following lies between $\frac{1}{3}$ and $\frac{2}{3}$ ($\frac{1}{4}$, $\frac{24}{30}$, $\frac{3}{6}$, $\frac{2}{7}$)

e) 

a= …….. ($\frac{1}{3}$, $-\frac{1}{3}$, $1\frac{1}{3}$ $-1\frac{1}{3}$)

f) The additive inverse of $-\frac{5}{2}$ is ……. ($-\frac{2}{5}$, $\frac{5}{2}$, $-\frac{2}{5}$, - 2.5)

g) The rational number between -3.1 and -3.17 is ……. (-3.2 , 3.15 , -3.14 , -3.18)

h) All integers are also …… numbers (counting , natural , rational)

i) A negative number with an absolute value greater than 10 is ……(10 , 11 , -9 , -12)

j) $|x|$ …….. -1 (< , > , =)

2) Complete :

a) The additive inverse of ……. Is itself

b) All negative numbers are …….. than 0

c) The integer that express the loss of 27 L.E = ……..

d) If 10 = $|y|$, then y = …… or ……

e) The number and its opposite have the …….. distance from zero but in two

……..directions on a number line

f) Absolute values of opposite are ……..

g) $-7\frac{2}{5}$ in the form $\frac{a}{b}$ is …….

h) The integers between -5 and 5 are ……

i) 8.5 > ……. > …….

j) the smallest non negative rational number is .....

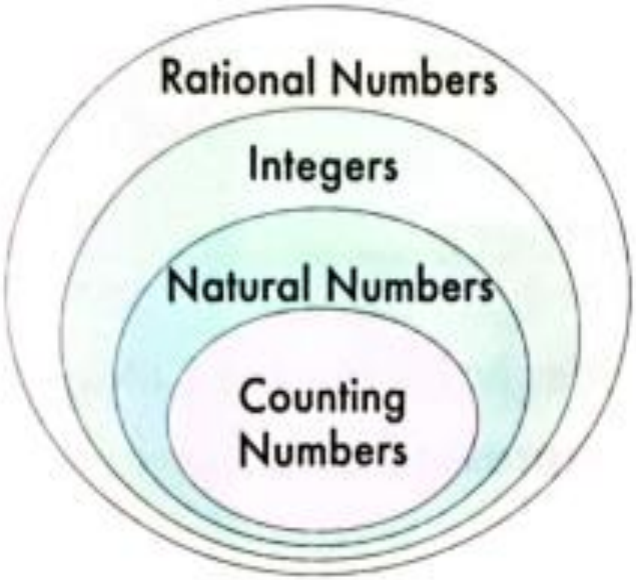
3) <u>Arrange in descending order :</u>

-2.6 , 0 , -4.3 , $2\frac{1}{20}$, $\left|-1\frac{3}{4}\right|$

……..

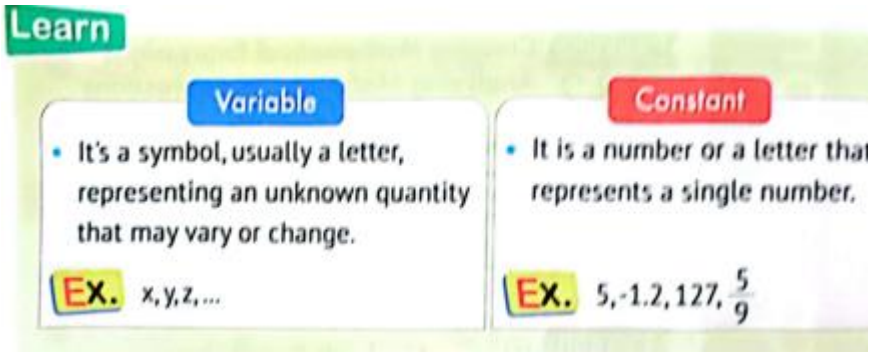
4) <u>Put the following on the suitable place</u>

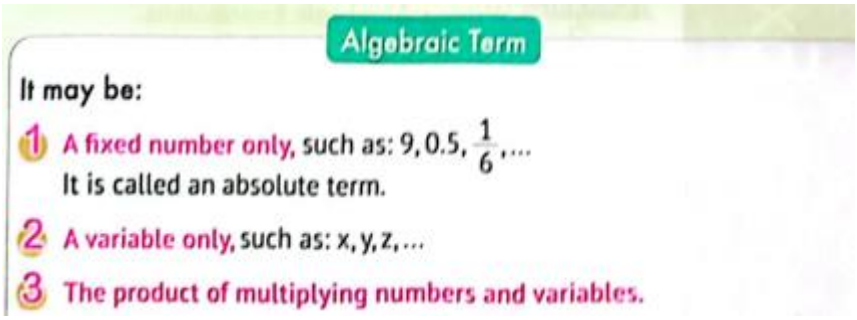
0 , -8.9 , 34 , $\frac{5}{8}$, $-2\frac{3}{4}$, -99 , $|-6|$



Unit3

Sheet (1)







1) Complete the following table :

Algebraic term	Number of factor	Coefficient	Algebraic factor
9xy	.....	.....	.....
3m	.....	.....	.....
-6b	.....	.....	.....
$\frac{1}{4}$ a	.....	.....	.....

2) Complete the following table :

	Numeric expression	**Algebraic expression.**
4+ 0.2 x 7		
7x + 8		
-a + 9b		
16 x 3.9		

3) Complete the following table :

	Variables	**Constant**	**coefficient**
7a+8b -10			
20 + 5 – 9x			
2			
13 - $\frac{3}{4}$ + y			

4) Complete the following table :

	Number of term	**Like term**	**Number of like term**
54			
X + $\frac{3}{8}$ x – 11			
16 a + 22 a			
9 x + 3z + 8 + 2x			

5) Choose the right answer :

a) In the algebraic term -8xy the coefficient is ..... (8 , -8 , x , y)

b) The algebraic term 5ab formed from ..... factor (1 , 2 , 3 , 4)

c) The absolute term in 3m + 2 is ..... (2 , 3m , 3 , m)

d) Which of the following is not algebraic term ?

(2x + 7 or 4m or x=2 or 2x -5)

e) Which of the following has 3 terms ?

(3x + 3 x or x + x + 4 or 2x -1 or 3 x)

6) Match :

In (3x + 7), 7 is a	• coefficient
In (3x + 7), 3 is a	• variable
In (3x + 7), x is a	• constant

7) Complete :

a) The number of terms of d + m = ...

b) The constant in 6 a + 2 - 3a - 7 = ...

c) The variable in 23s – 20 = ...

d) The like terms in m + 7y -3 – 6 y = ...

Sheet (2)

1) Write each of the following algebraic expressions using verbal expressions (word)

a) X + 6 = ……..

b) L-9 = ……

c) p÷ 4 = ……

d) 5r = ……..

e) yy = ……..

f) 10 +7z = ……

g) $\frac{11-b}{6}$ = ……..

h) 8 (x + 5) = ……..

2) Write each of the following verbal expressions using algebraic expressions

a) Add 8 to a number = ……..

b) Three times the sum of a number and 14 = ……..

c) A number divided by 32 is increased by 9 = ……..

d) Subtract 28 from twice a number = ……

e) Four times the sum of a number and 77 = ……

f) A number less than 20 = ……..

3) <u>A square of side length L write an algebraic expression for its perimeter and its area</u>

Perimeter = ……

Area = ……

4) Aly is x years old now , how old will be after 3 years ?

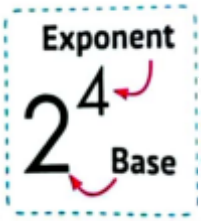
……..

5) Nora ate x sandwiches and her father ate 7 sandwiches , if the price of each sandwich is 30 L.E Write two algebraic expressions to find the cost of the meal

……

……

Sheet (3)



- 2 is the repeated number and is called the "base".
- 4 is the number of repetitions and is called the "exponent, power, or index".

- Any number to the zero power equals 1. (Except zero)
  Ex. $3^0 = 1$, $6^0 = 1$, $(-4)^0 = 1$
- 1 to the power of any number = 1.
  Ex. $1^9 = 1$, $1^5 = 1$, $1^5 = 1$
- 0 to the power of any number = 0. (Except zero)
  Ex. $0^6 = 0$, $0^2 = 0$, $0^{23} = 0$

1) Complete :

Exponential form	Base	Exponent	Expanded form	Simplest form
3^2	.....	.....	.....	.....
.....	4	3	.....	.....
.....	.....	.....	7x7	.....

2) Use the order operations to simplify the following :

a) $12 + (9 - 2) \times 3^2$

.....

b) $40 \div 8 (7 - 5)^2 + 10$

.....

c) $30 - ((12 - 3^2)^3 - 25) \times 5$

Sheet (4)

1) Use the order operations to evaluate the following :

a) $6 (x^3 - 5) + 7$ for $x = 2$

……

b) $5k^2 + 3 (8 - 2) \div 6$ for $k = 4$

……

c) $4^2 + 5 (b^2 - 3)$ for $b = 3$

……

2) Mina has 120 L.E , he will save 15 L.E daily ,what algebraic represent this situation ?

how much money will he have after 5 days ?

……

……

3) Mona bought x Kg of chocolate and put them on a box that costs 10 L.E , if the price of one Kg of chocolate is 320 L.E what algebraic represent this situation?

And what is the amount paid by Mona if she bought 2 K?

……

……

Sheet (5)

1) Evaluate each pair of the algebraic expressions at the given value for the variable and determine were t two expressions are equivalent or not :

a) 5x +3 and 3(x+4) – 5 for x = 3 and x =2

Substitution value	5x + 3	3(x+4) -5	Result
For x = 3			
For x =2			

b) 4x +5 and 4 (x +5) for x =1 , and x = 6

Substitution value	4x + 5	4(x+5)	Result
For x = 1			
For x =6			

c) 10 +2 (x -1) and 2x +8 for x =5 and x = 3

Substitution value	10 + 2(x -1)	2x + 8	Result
For x = 5			
For x =3			

2) Complete :

The value of y	1st expression	2nd expression	have the same value or not
For y= 5	14 + 2 y	8 + 3 (y + 2)	
For y= 2	Y + 5	3(y+2) - 2y -1	

Revision on unit 3

1) Choose the right answer :

a) The algebraic term 12xy is form of …… factors (1 , 2 , 3 , 4)

b) The number of terms that makes up the algebraic expression 3xy + 2x -5 is

…….term (2 , 3 , 4 , 5)

c) The absolute term in 3 m +2 is ……. (3 , 2 , 3m , m)

d) Subtracting the number 3 from double the number y =…….

(3 – 2 y or 2(y – 3) or 3y – 2 or 2y – 3)

e) 5 x5 x 5 = ……. 5 x 3 or 5^3 or 3^5 or 5+ 3)

f) Rita is now 25 years old how old was she in h years ago

(25 – h or h – 25 or 25h or 25 + h)

i) $3^2 + 4$ ……$9 + 2^2$ (< , > , =)

2) Complete :

a) In 7 ab the coefficient is ……

b) The verbal for of 3x – 5 is ……

c) $5^{\cdots\cdots} = 1$

d) $4^{\cdots\cdots} = 4$

e) Five squared = …….

f) 2 x + 3 x + 10 and 4 (x +3) are equal when x = ……

Use the order operations to evaluate the following :

(17 – 11) +3 x 2^4 ÷2^3

……

……

3) Match :

The value of $b^3 - 4b \div 2$ [when $b = 2$] is	7
The value of $x^2 + x^3 - 10$ [If $x = 2$] is	4
The value of $(y^2 - 1) \div 5$ [If $y = 6$] is	2

4) Moataz saved n L.E per day for 9 days then he got 20 L.E from his father

Write the algebraic expression which represent this situation

……

Complete using preceding algebraic expression:

a) The number of terms of algebraic expression= ……..

b) The coefficient = ……..

c) The constant = ……..

unit 4

sheet (1)

1) Write the equations , then find the value of x



Equation : ……..

X = ……



Equation : ……..

X = ……

2) Solve the following equations :

a) X – 5= 12

……

b) X + 2 =26

……

c) 6m = 18

……..

d) $\frac{z}{7}$ = 14

……..

e) 3y – 5 = 7

……

sheet (2)

1) **Solve the following inequalities and represent them on the number lines in the set of integers :**

a) X > -2

b) X > -1

c) $d \geq 4$

2) **Name 3 solutions of each inequality in the set of rational number :**

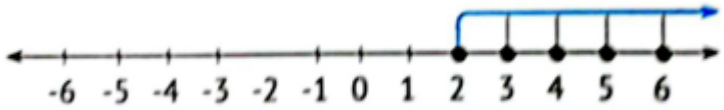
a) Y < -3

b) $m \leq -5$

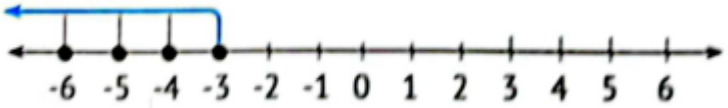
c) $x \geq 0$

3) <u>write the inequality</u> :

a)



b)



4) <u>choose the right answer :</u>

a) The inequality which represent the statement : all values greater tan 2 is …….

(x > 2 or x < 2 or x≥ 2 or x≤ 2)

b) Which of the following value is a solution for : x > -1 (1 , -3 , -2 , -5)

c) Number of solution of inequality x>10 is …… (0 , 1 , 2 , infinite)

d) Which of the following is not a solution of n > 1.5 (2.5 , 2 , 1 , 3.5)

e) The inequality X >-2 includes all the values to the right of -2 on the number line

(true or false)

Revision on unit 4

1) Complete :

a) The smallest solution of the inequality k $\geq$-4 is ……..

b) If x = 0 , ten 100x = ……

c) The inequality that represents all value less than or equal -6 is ……

d) If m -4 = 6 , then m = ……..

e) If k + 1 = 5 , then k -3 = ……

f) If 96 ÷ y = 12 , then $\frac{1}{2}$ y = …….

2) Youssef reads at least 5 books , write the inequality of the situation, then find four possible solution of it

……

……..

3) Solve the following :

a) 2x -1 = 11

……

b) 3x + 2 = 8

……

c) 4x - 7$\geq$ 5

……..

4) <u>Choose the right answer :</u>

a) Which are the possible solutions for the inequality $y > 12$?

(5 , 7 , 9 or 10 , 12 , 14 or 13 , 17 , 22 or 12 , 22 , 32)

b) If $x + 4.5 = 5.7$, then x = …… (1.2 , 1.3 , 9.2 , 10.2)

c) Which of the following value is a solution for : $x \geq -5$ (-5 , -6 , -7 , -8)

d) A number is no more than 10 can be written as :

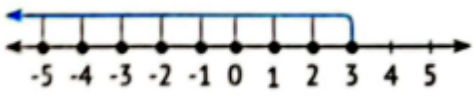
($n < 10$ or $n > 10$ or $n \geq 10$ or $n \leq 10$)

e) If $y - 6 = 14$, then $\frac{y}{\ldots\ldots} = 2$ (3 , 10 , 12 , 4)

f) The inequality that represents all negative number is ……..

($x < 0$ or $x > 0$ or $x \geq 0$ or $x \leq 0$)

g) The inequality representing by the opposite figure is ……



($x > 4$ or $x < 4$ or $x \geq 4$ or $x \leq 4$)

Unit 5

Sheet (1)

Learn **Dependent and Independent Variables**

Variable

Independent Variable

- It's a variable whose value is not determined or restricted by any other value or variable.
- Therefore any value can be assigned to it.

Dependent Variable

- It's an outcome variable that is determined by or based on the independent variable as the input.

- The independent variable is usually denoted by "x" and the dependent variable is denoted by "y".
- Other symbols may be used:



1) <u>Determine the independent and the dependent variables in each :</u>

a) The number of study hours and the result of the exam

Independent variable :

Dependent variable :

b) The job and level of education

Independent variable :

Dependent variable :

c) The distance travelled by a car and benzene consumption

Independent variable :

Dependent variable :

2) <u>Use the following equations and complete the table</u>

Equation	**Dependent variable**	**Independent variable**
x= 3y		
a= b +2		
m = 5 s + 4		
14+2e = f		
D=6+6c		

Sheet (2)

1) Use the variables x and y , where x is an independent variable , write the rule and the equation :

Relation	Equation
.....	$y = 8x$
Add 9	.....
Divide by 3	.....
.....	$y = 3x + 7$
.....	$y = (x - 3) \div 2$

2) <u>Choose the right answer :</u>

a) In the equation : x = 4y +3 , the dependent variable is ..... (x , 4 , y , 3)

b) In the equation : 9a+24=b , the independent variable is ..... (9 , a , 24 , b)

c) f equals the sum of adding 11 to the product of 8 and e in equation is .....

(e = 8 + 11f or e = 11+8f or f= 8 + 11e or f = 11 + 8e)

d) the word phrase for the equation u = 9t is .....

(t equals u increased by 9 or u equals 9 times t or t equals 9 times u or

u equals t increased by 9)

Sheet (3)

1) Complete :

x	2	4	8	10	5
y	4	10	22	28	.....

Relation :

Equation :

x	9	6	12	15	.....
y	2	1	3	4	5

Relation :

Equation :

x	7	13	9	3	5
y	3	6	4	1	.....

Relation :

Equation :

x	4	3	2	6	.....
y	10	8	6	14	12

Relation :

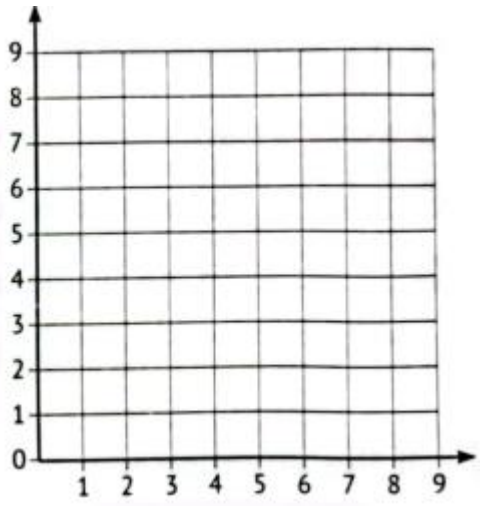
Equation :

Sheet (4)

1) The following table represents the number of pens and their total price

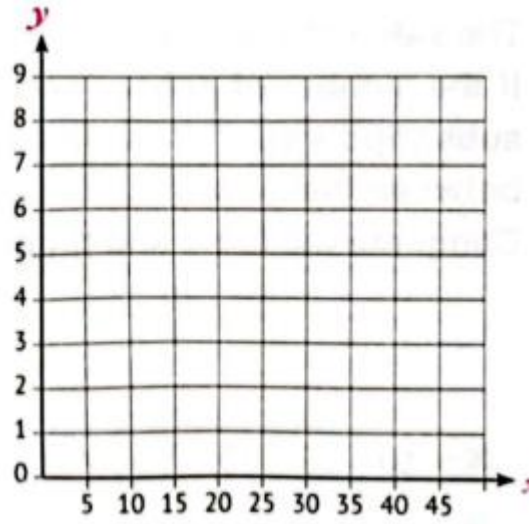
Write an equation to represent the relation then represent graphically

Number of Pens (x)	1	2	3	4
Total Price in Pounds (y)	3	6	9	12



2) If the equation is $y = \frac{1}{5}x$, complete the following table and graph it :

x	10	15	20	30	45
y	.....	.....	.....	.....	.....



3) Write an equation , use the variable x and y where x is the independent variable to evaluate y :

a) Multiply by 5 , substitute if x = 7

.....

b) Add 1 , substitute if x = 5.2

……..

c) Multiply by 4 and add 3 /substitute if x = 3.3

……

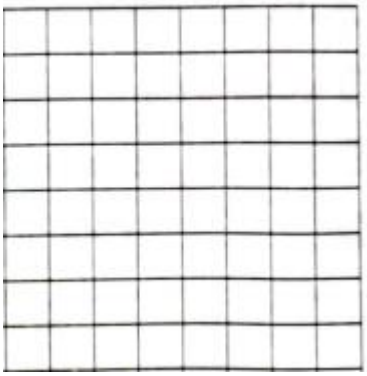
d) Multiply by 5 and add 4.1 substitute if x = 8

……

4) Complete the following table , make the graph

The equation : y = x+1

X	0	1	2
Y			
(x ,y)	(0 , …….)	(……, ……..)	(2 , ……)



Revision on unit 5

1) Choose the right answer :

a) The dependent variable in the equation : $s = 4t + \frac{1}{9}$ is ……..(s , 4 , t , $\frac{1}{9}$)

b) In the equation : y = 3x +1 , the ordered pair (2 , a) satisfies the equation , then a = …… (5 , 6 , 7 , 8)

c) If the independent variable is the number of studying hours , then te dependent variable is ……..

- The number of days you go to the club
- The distance between the club and the house
- The color of your training clothes
- The height of the house

d) The ordered pair which satisfies the rule : y = x + 2 is ……

((0,0) , (1,2) , (2,4) , (3 , 6))

e) in the equation : y = x+1 , if the output is 1 , then the input is ……. (0 , 1 , 2 , 3)

f) in the equation : y = 2x + 1 , if the input is 4 , then the output is …… (6 , 7 , 8 , 9)

g) if y = 7 + 2x , then (…….. , 11) satisfies the rule (2 , 7 , 8 , 9)

2) Complete :

a) If the number of cars in the garage depends on the size of the garage , then the dependent variable is ……., the independent variable is…….

b) If the independent variable what Ahmed saves every day , and the dependent variable is what he saves every week , then……..depends on …….

c) The ordered pair which satisfies the rule : y = x+3 is (1 , ……..)

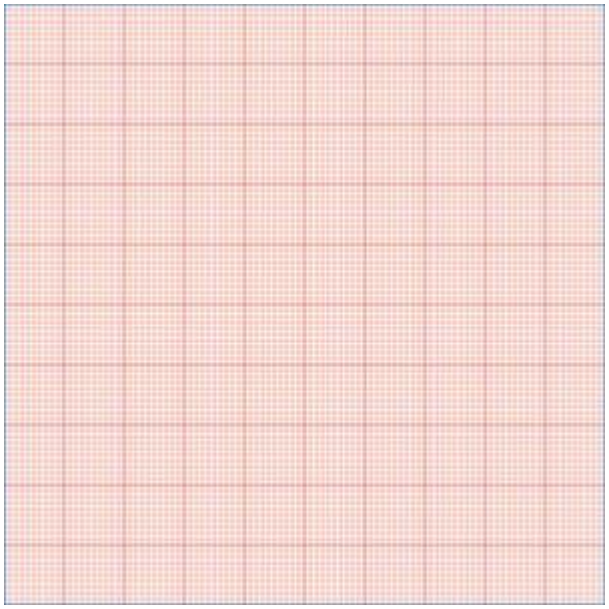
d) In the rule : y = 4 x , if x = 2.4 , ten y = ……

3) Omar manufactures hats producing 10 hats per day , the following table represents the number of working days (x) and the number of hats produced (y)

represent it graphically

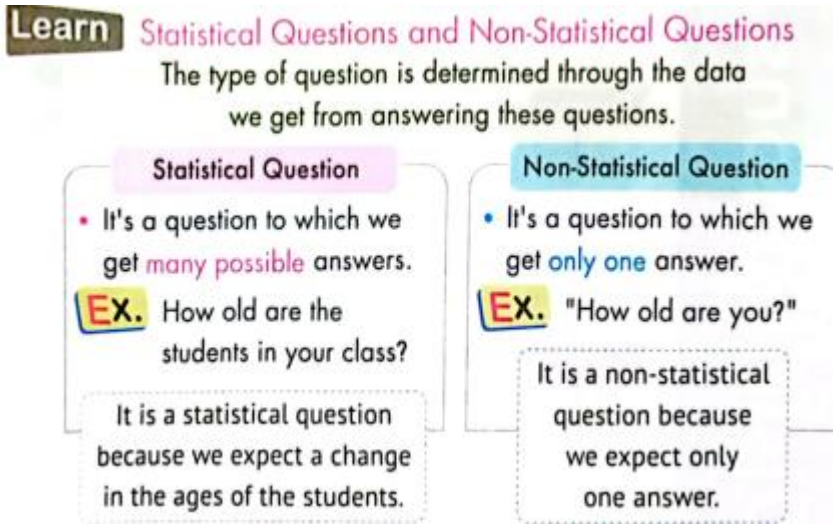
the equation :…….

x	2	4	6	8
Y	20	40	60	80



Unit 6

Sheet (1)



1) Select the type of each of the following questions

The question	Statistical	Non-statistical
What are the favorite students activity		
Do you like the blue color		
How tall was Mina in the previous year		
How many emails do students write		
What is the name of your mother		
How many sisters dos Ola have		

2) Complete :

a) Type of data are …….. ,……

b) Type of statistical data are …… ,……

c) The numerical data can be written in form of ……..

d) The categorical data can be written in form of ……

Sheet (2)

1) Choose the right answer :

a) The horizontal axis includes periods in a …….

(dot plot , bar graph , double bars , histogram)

b) A …….. does not have vertical axis

(dot plot , bar graph , double bars , histogram)

c) In a …… there is a graduated scale for the vertical axis

(dot plot only , bar graph only , both bar graph and histogram , histogram only)

2) From the opposite dot plot :

Books read last month



Number of books

The number of students that were surveyed = ……..

The number of students read 2 books = ……

The number of students read 3 books or more = ……..

Sheet (3)

1) **The following table shows the score of pupils in math test, represent data by histogram**

12 -35-49-55-29-37-46-32-20-42-59-48-38-34-28-10-19-34-39-53-42-49-52-44-25-17-50-31-26-55-35-45-56-27-38-44-33-36-15-27

2) **The following table shows the weights of pupils in a class, represent data by histogram**

Weight	24	28	29	30	32	34	35	36	37	40	42	45	46	48
frequency	2	2	2	3	3	4	5	2	3	1	1	3	2	5

Sheet (4)

1) Find the median of the following :

a) 5,9,9 , 2 , 4

……..

……..

b) 2, 0 , 5 , 8 , 11 , 7

……..

……..

c) 3 , 9 , 1 , 8 , 2 , 3 , 6

……

……

d) 2 , 0 , 5 , 8 , 11 , 6 , 5 , 7

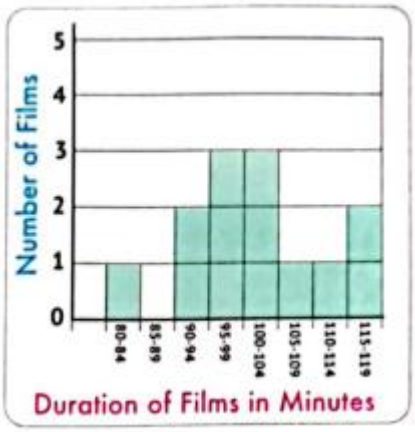
……..

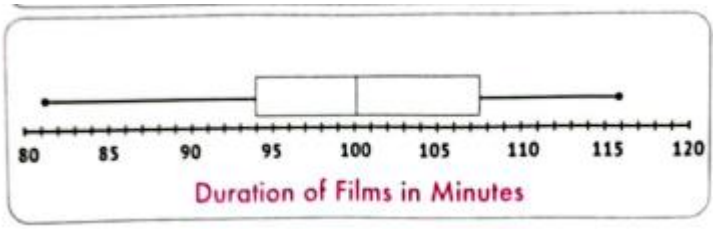
……..

2) Draw a box plot to represent the following values :

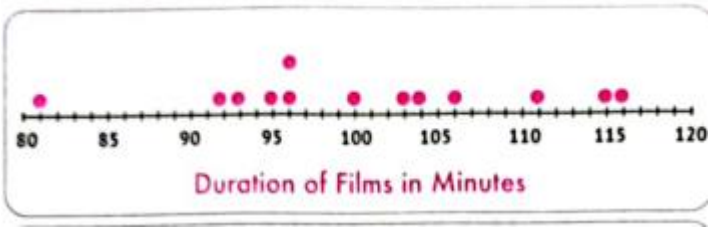
15 , 17 , 13 , 11 , 12 , 9 , 0 , 12 , 18 , 4 , 7 , 1 , 0

3) <u>The following graphs show the duration of films in minutes</u>





minutes.



Question	Answer	Dot plot	Histogram	Box plot
how many films are their duration graphically represented				
What is the longest film				
how many films are 100 minutes long				
how many films are less than 90 minutes long				
how many films are from 105 to 115 minutes long				
What is the median				
how long are the most popular film				

Revision on unit 6

1) Choose the right answer :

a) Statistical question …….

(Its result in a lot of different answers , has one answer , its answer is yes or no , its answer is one number)

b) From the categorical data …….. (birthdates , ages , weights , favorite team)

c) The maximum value of the values : 8 , 6 , 8 7 , 2 , 6 , 3 is …… (2 , 7 , 8 , 6)

d) The upper quartile of the values : 9 , 3 , 0 , 4 , 8 , 1 , 7 is …… (8 , 4 , 1 , 9)

2) Complete :

a) The monthly income of a person is from the ……data

b) The best graph to represent the number of pupils between the ages of 12 to 15 is ……..

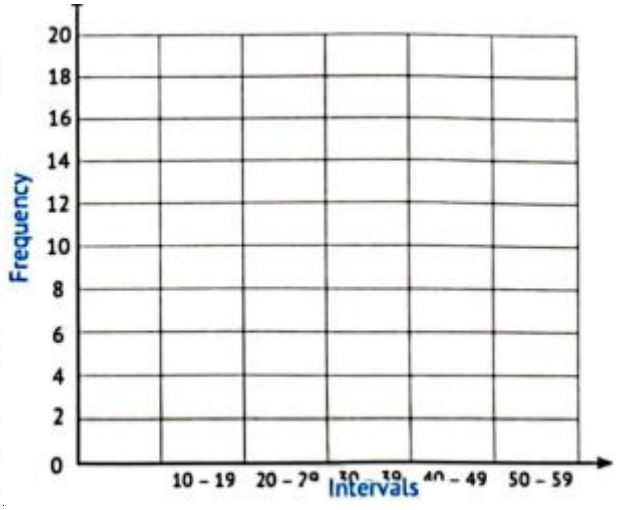
c) The best graph to represent the number of studying hours for a student during a week is ……..

d) The most appropriate graph to represent individual data and the number of data values present is ……..

e) The most appropriate graph to represent peaks and gaps and aggregate data is ……..

3) Draw the histogram :

Interval Grades	Frequency Number of Students
10 – 19	4
20 – 29	12
30 – 39	18
40 – 49	9
50 – 59	8

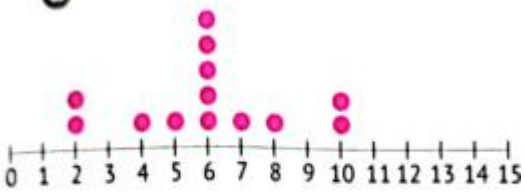


Unit 7

Sheet (1)

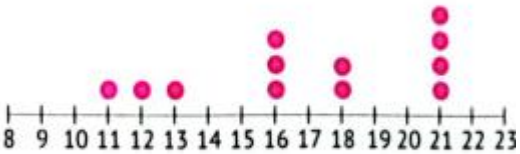
1) Determine the mean :

a



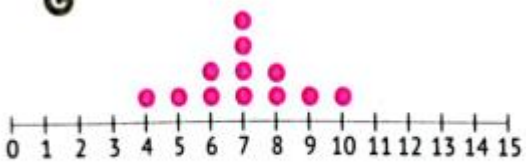
• Mean = ...

b



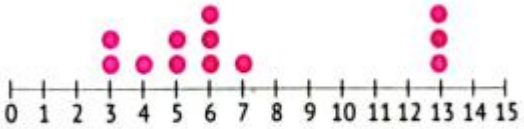
• Mean = ...

c



• Mean = ...

d



• Mean = ...

2) A group of friends collect their marbles and redistributed then equally among themselves , the following table shows the number of marbles that each of them owns

Child	Sajid	Marwan	Fatima	Farida	Wafaa	Omar
Number of Marbles	8	9	12	7	3	9

Find the share of each of them after redistributing the marbles equally

.....

3) <u>Find the mean :</u>

a) 40 , 38 , 36 , 34 , 32

……

b) 25 , 12 , 3 , 18

……

c) 3,3, 5 , 7 , 2 , 4, 7 , 3

……

4) <u>Find the value of x :</u>

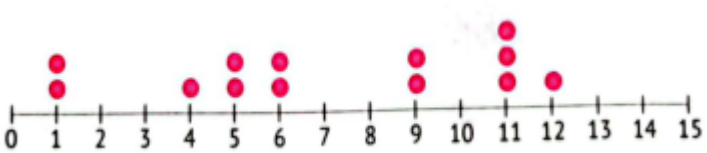
a) If the mean of the values : 6 , x , 7 , 9 , 7 , 8 is 7

……

b) If the mean of the values : x , 5 , 4 , 9 , 8 is 6

……

5) <u>Determine the median and the mean of :</u>



the median :……..

the mean :……..

Sheet (2)

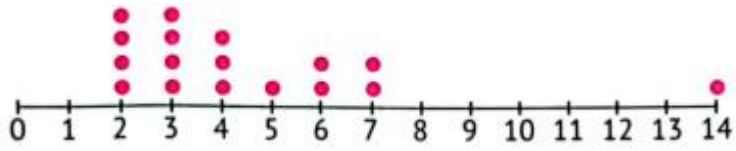
1) Find the mode of :

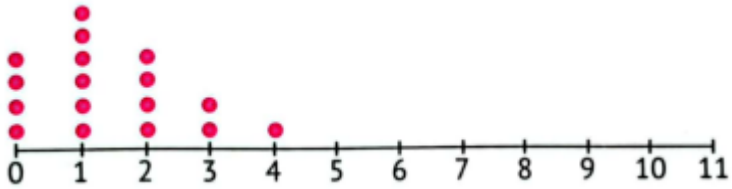
Value	Mode
6 , 8 , 4 , 3 , 5 , 8	
7 , 1 , 2 , 7 , 6 , 4 , 3 , 5 , 2	
Car , plane , train , bus , plane	
0 , 4 , 5 , 9 , 1	
10 , 13 , 10 , 13 , 2 , 10	

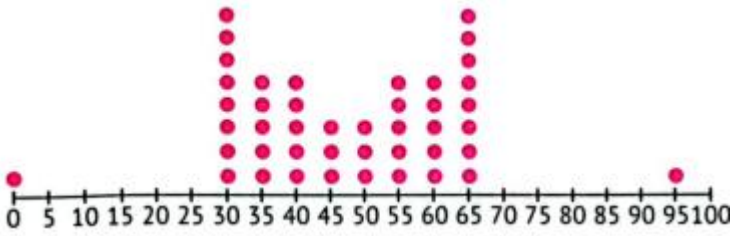
2) List the outliers

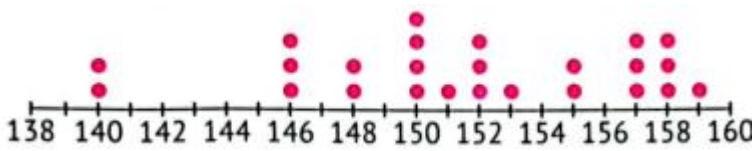
Values	Outliers
6 , 8 , 7 , 5 , 19	
16 , 17 , 15 , 18 , 2	
3 , 2 , 5 , 6 , 4 , 5	
122 , 118 , 120 , 119 , 124	
55 , 65 , 58 , 11 , 69	

3) Use reasoning to assign each of the given descriptions the related graph (mean increase , mean decrease , mean stays the same)





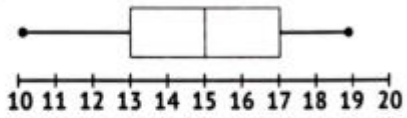




Sheet (3)

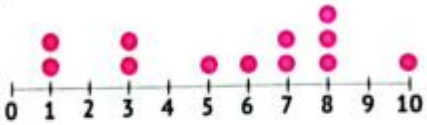
1) Complete :

ⓐ



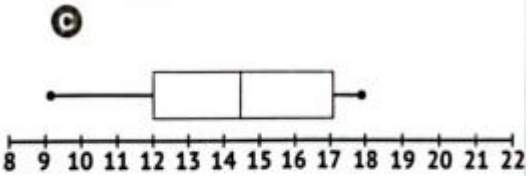
Largest value: .....
Least value: .....
Range: .....

ⓑ



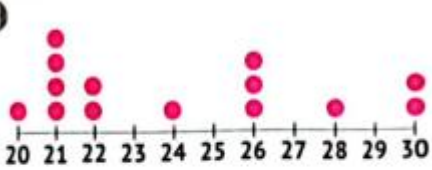
Largest value: .....
Least value: .....
Range: .....

ⓒ



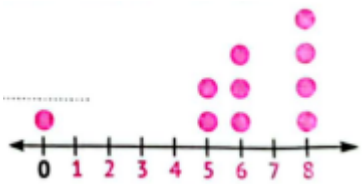
Largest value: .....
Least value: .....
Range: .....

ⓓ



Largest value: .....
Least value: .....
Range: .....

2) Use the opposite box plot to complete :



The range : ....., the median : ..... the outlier : .....

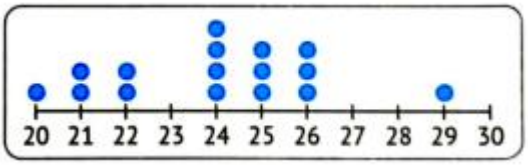
Revision on unit 7

1) Complete :

a) If the sum of seven numbers is 49 , then the mean of these numbers is ……

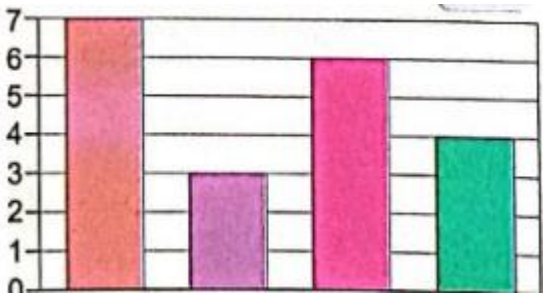
b) …… is the better measure of center for data set with no outlier values

c) The mode of the opposite data set ……



d) From the opposite bar graph :

The number of pupils who did not prefer pink = …….



e) If 50 is the greatest number of data set , and the range = 10 , then the smallest number of this data set = ……

2) If the median of the values : k +1 , k+2 , k+3 , k+4 , k+5 , where k is a positive number is 13 , find te value of k

……

Final revision

1) Complete :

a) The number that if we divided it by 35 , the quotient will be 139 and the remainder is 22 is …….

b) The prime number has only ……factors

c) The prime factors of 28 are …….

d) …….. is a number whose prime factors are : 2 , 3, 5

e) The G.C.F of the two relatively prime numbers = …….

f) The opposite of 10 = ……

g) The integers between -3 and 4 are ……

h) Rational number $-\frac{3}{2}$ in form of decimal = …….

i) The next integer to -8 is ……

j) The rational number - 7.2 lies between …….. , ……..

k) $|-4|$ = ……

l) The algebraic factor in 2.5 x is …….

m) The value of the algebraic expression 9 x if x = 5 is …….

n) The value of the algebraic expression 4 ($y^3 - 7$) if y = 3 is ……..

o) …….. to the power ……= 6^4

p) If x + 8 = 24 , then x = ……..

q) 5 x5 x5x5 = …… ……

r) The inequality that represent all values to the right of -10 on the number line = ……

s) The mode of the values : 9 , 2 , 8 , 3 , 7 , 3 = ……

t) The median of the values: 8 , 2 , 10 , 1 , 3 , 7 , 2 = ……

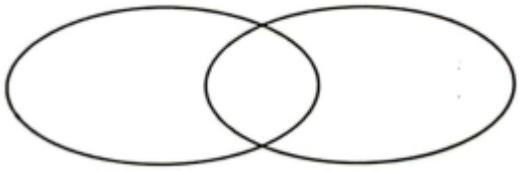
u) The mean the values : 8 , 9 , 2 , 7 , 6 , 4 , 6 = …….

v) The outliers in the set of values : 6 , 18 , 3 , 4 , 7 ,5 = ……

w) Range = ……. - …….

2) <u>Find</u> :

a) <u>Find the G.C.F and the L.C.M using the Venn diagram of 24 and 16</u>



G.C.F =…….

L.C.M = …….

b) Diaa saves 140 L.E every month ,if the amount saved in x month is y L.E

The equation which represents this situation = …….

The independent variable = ……..

The dependent variable = …….

Diaa saves …… In a year

c) $(2^4 - 1) + (3^2 - 4)$ = …….

d) $3^b + 6 (b^2 - 3)$, if b = 2 , ……

e) $4\frac{1}{12} + 9\frac{5}{6}$ = ……

f) $6\frac{2}{5} - 3\frac{3}{4}$ = ……..

g) 14 ,467 ÷ 23 = ……..

h) If the total price of 25 books is 2,825 L.E , find the price of 36 books

……

……

i) Samy wants to row 20 jasmine plants and 30 fol plants in basins , that each basin contain the same number of jasmine and fol , write a numerical expression that represents the largest number of basin

……

……

j) Lora bought a pen for $9\frac{1}{2}$ L.E and a ruler for $7\frac{3}{4}$ L.E , if se ad 20 L.E

Find the left money with her

……

……

3) <u>Choose the right answer :</u>

a) 7^0 ……. 0^7 (> , < , =)

b) The inequality that represents all the values greater than -1 is …….

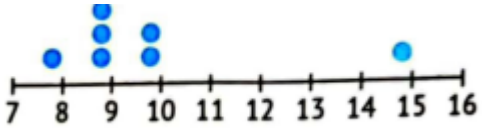
($x < -1$, $x > -1$, $x \leq -1$, $x \geq -1$)

c) The equation which expresses multiply by 2 then add 5 is ……..

($y = 5x + 2$ or $y = 2(x+5)$ or $y = 5(x + 2)$ or $y = 2x + 5$)

d) $3^2 + 3^2 + 3^2$ = ……. (3^6 , 9^3 , 3^3 , 9^6)

e) The correct description that applies to the opposite graph is the mean …….

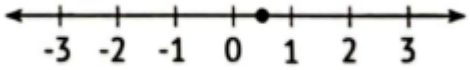


(increases , decreases , remains the same)

f) All the following are measures of the center except …….

(mean , median , mode , range)

g) The rational number represented on the number line is …….



(0.5 , -0.5 , 1.5 , - 1.5)

h) Which of the following values is a solution of $x < 9$ (10 , 9.1 , -9.5 , 9)

i) -7 is to the right of ……. on the number line (-8 , 8 , -6 , 6)

j) The absolute value of 2.7 is ……. (2.7 , -2.7 , 27 , -27)

4) <u>Arrange in ascending order :</u>

$-\frac{3}{4}, \frac{5}{8}, \frac{1}{2}, \frac{3}{4}, \frac{1}{4}$

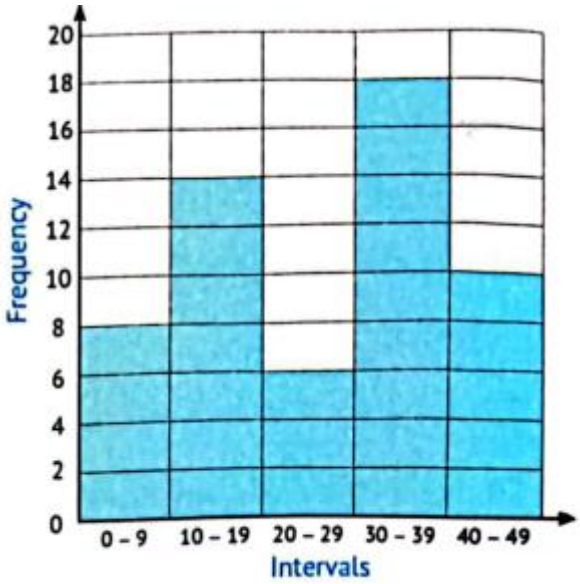
……

$8, -17, |-3|, -9, |12|$

……

5) <u>Using the following histogram :</u>

Intervals	Frequency
0 – 9	.....
10 – 19	.....
20 – 29	.....
30 – 39	.....
40 – 49	.....



6) The following table shows the recorded temperature in 40 cities , draw the histogram of the frequency table

Interval Temperatures	Frequency of Number of Cities
20 – 21	8
22 – 23	12
24 – 25	9
26 – 27	7
28 – 29	4

Saint Fatima Languages schools **Primary : 6** **1st term 2023-2024**

El Hejaz **Final exam (Math)** **Time: $1\frac{1}{2}$ hours**

1) Choose the right answer :

a) 3.8 > ……. (4.1 or 5 or – 9.8 or 6.72)

b) The outlier of the following values : 32 , 37 , 4 , 29 , 38 is ……

(32 or 4 or 38 or 29)

c) The best subset for the number - 2 is …….

(a Counting number or an integer or a natural number or a rational number)

d) If y = 7 + 3 x , then (……, 10) satisfies the equation (0 or 1 or 2 or 4)

e) All the following data are numerical except ……

(temperatures or name or weights or ages)

f) A merchant sold 12 same boxes of mango for 3,000 L.E , then the price each box is …… L.E . (25 or 250 or 240 or 230)

g) The mode of the values : 5 , 3 , 2 , 5 , 1 , 2 , 5 is ……..

(5 or 3 or 2 or 1)

2) <u>Complete</u> :

a) The mean of the data set : 9 , 19 , 12 , 10 is …….

b) The verbal form of " m + 0.7 " is

…….……

c) $10—3\frac{1}{4}$ = ……

d) The median of the set of values : 15 , 15 , 17 , 20 , 16 , 22 is …….

e) The coefficient of 2 + 3a – 5 is ……..

f) The integers between – 4 and 2 are ……..……

g) In the equation : 5 x + 3 = y , the dependent variable is ……..

h) In the equation : 3,410 ÷ 63 = 54 R8 , the divisor is ……..

3) <u>Choose the right answer</u> :

a) What is the range of the following data set ?



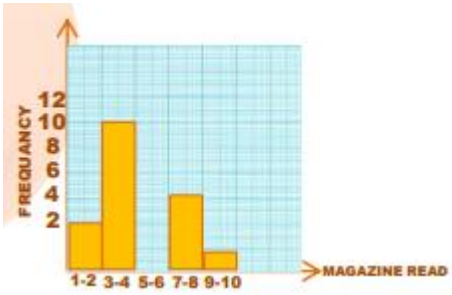
(3 or 4 or 5 or 7)

b) The integer which comes just before – 3 is … (– 2 or – 4 or – 1 or 0)

c) Eight squared = …….. (2×8 or 2 + 8 or 8^2 or 8 ÷ 2)

d) The opposite histogram shows The number of magazines read Last week by students in your class . Which interval contains the fewest data ?

(1–2 or 5–6 or 7–8 or 9–10)



e) Which of the following are relatively prime numbers ?

(2 and 6 or 4 and 9 or 4 and 8 or 10 and 15)

f) The common factor of all numbers is …… (0 or 1 or -2 or -1)

g) If x + x = 12 , then x = …… (1 or 6 or 21 or 22)

4) A) Evaluate the expression : $5y^2 + 8 \div (6 - 4) \div 2$ where y = 3

……

……

B) Find the G.C.F and the L.C.M of the following numbers using Venn diagram

7 and 12

……

……



C) A merchant paid 7,420 L.E to buy 53 boxes mango . Find the price of each box

……

D) <u>Draw the box plot for the following data</u> : 5 , 7 , 13 , 11 , 2 , 1 , 2 , 14 , 16 , 10 , 3

<u>Complete :</u>

Min = ……

Q1= ……

Median = ……

Q3= ……

Max = …….

……

……