



Sheet (1)

**1-Complete each of the following :**

- a)  $79.987 \simeq \dots\dots\dots$  (to nearest hundredth )  
b)  $24 \frac{9}{500} \simeq \dots\dots\dots$  ( to nearest tenth )  
c)  $16 \frac{250}{10000} \simeq \dots\dots\dots$  (to nearest thousandth )  
d)  $99.999 \simeq \dots\dots\dots$  ( to nearest hundredth )  
e)  $19.989 \simeq \dots\dots\dots$  (to nearest hundredth )

**2-Choose the correct answer :**

- a)  $16.7701 \simeq \dots\dots\dots$  ( to nearest hundredths ) [ 16.77 – 16 – 17 ]  
b)  $341.3691 \simeq \dots\dots\dots$  (to nearest thousandths )  
[ 341.396910 – 341.370- 341.369 – 341.361 ]  
c)  $112.4365 \simeq \dots\dots\dots$  ( to nearest thousandths ) [ 112.4 – 112.44 – 112.437 – 112.436 ]  
d)  $196.6531 \simeq 196.65$  to nearest..... [ unit - tenth – ten - hundred – hundredths ]  
e)  $374.4798 \simeq 374.480$  to nearest ..... [ unit – thousands – tenth – hundredth – thousandths ]

**3- Carryout the following operations :**

- a)  $0.398 + 0.2232 = \dots\dots\dots \simeq \dots\dots\dots$  to the nearest thousandths  
b)  $568.7 + 88.53 = \dots\dots\dots \simeq \dots\dots\dots$  to the nearest tenths .  
c)  $47.8 - 9.573 = \dots\dots\dots \simeq \dots\dots\dots$  to the nearest hundredths .

4- Write the greatest decimal number and smallest one which consists of 3 , 5 , 4 and 2 then approximate it to the nearest hundredth :-

The greatest =.....  $\simeq$  .....

The smallest = .....  $\simeq$  .....

5- Two pieces of cloth are of length 87.92 m and 82381 cm . Find the sum of the lengths of two pieces approximated to the nearest metre .

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6- A road whose length is 57895 metres . Find its length approximated to the nearest kilometre ?

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7- Write three numbers each of them approximated to nearest thousandths becomes 86.380

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8-A trader had 954.678 kg of Mango. if he sold 357 kg find the remainder amount approximated to the nearest kilogram ?

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## Sheet (2)

**I- Estimate to place the decimal point in the underlined number :-**

a)  $\underline{1374} \times 6 = 8.244$

b)  $\underline{136} \times 0.25 = 0.3400$

c)  $\underline{211} \times 9.6 = 20.256$

d)  $0.24 \times 0.398 = \underline{9552}$

e)  $0.09 \times 0.3 = \underline{27}$

**II- Choose the correct answer :**

a)  $125 \times 0.8 = \dots\dots\dots$  [ 100.0 – 1000.00 – 10.00 – 0.1 ]

b)  $3.4 \times 6.2 = \dots\dots\dots$  [ 2.108 – 21.08 – 210.8 – 2108 ]

c) Each pupil in the 5<sup>th</sup> grade uses 3.12 kg of cake each month . What is the amount of cake would be used by 7 pupils ?  $\dots\dots\dots$  [ 218.4 – 21.84 – 2.184 ]

d)  $2.3 \times 4 = \dots\dots\dots$  [ 9.2 – 92 – 82 – 7.2 ]

e)  $13 \frac{1}{8} \simeq \dots\dots\dots$  to nearest hundredth [ 13.100 – 13.120 – 13.13 ]

**III- Find the product in each of the following :**

a)  $342 \times 0.01 = \dots\dots\dots \simeq \dots\dots\dots$  to the nearest unit .

b)  $5.4 \times 3.2 = \dots\dots\dots \simeq \dots\dots\dots$  to the nearest ten.

c)  $14.35 \times 0.6 = \dots\dots\dots \simeq \dots\dots\dots$  to the nearest hundredth .

d)  $0.004 \times 64 = \dots\dots\dots \simeq \dots\dots\dots$  to the nearest thousandths .

e)  $0.09 \times 0.004 = \dots\dots\dots \simeq \dots\dots\dots$  to the nearest hundredths .

**IV- Multiply :**

$$\begin{array}{r} a) \times 0.07 \\ 0.5 \\ \hline \end{array}$$

.....

$$\begin{array}{r} b) \times 6.3 \\ 0.08 \\ \hline \end{array}$$

.....

$$\begin{array}{r} c) \times 0.93 \\ 0.6 \\ \hline \end{array}$$

.....

$$\begin{array}{r} d) \times 0555 \\ 03 \\ \hline \end{array}$$

.....

$$\begin{array}{r} e) \times 9.11 \\ 00.1 \\ \hline \end{array}$$

.....

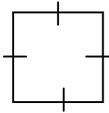
$$\begin{array}{r} f) \times 79.7 \\ 0001 \\ \hline \end{array}$$

.....

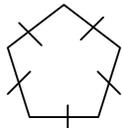
**V-Put the suitable sign <, >, =**

- a)  $0.3 \times 1.5$              $3 \times 0.5$
- b)  $4.2 \times 1.53$              $4.2 \times 15.3$
- c)  $65.9 \times 100$              $659 \times 10$
- d)  $0.206 \times 0.9$              $0.206 \times 0.009$
- e)  $0.891 \times 0.01$              $891 \times 0.0001$

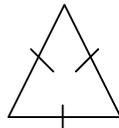
**6- Calculate the perimeter of each of the following :**



43.2 cm



51.5 cm



94.5 cm

Approximate the result to the nearest meter.

7- If the price of one metre of a cloth is L.E 17.5 then what is the price of 3.5 m of it ?

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8- The height of a common flea is 2.5 mm it can jump 230 times of its own height .how high can it jump ? to nearest m ?

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9- A snail travels about 0.005 km per hour . A spider 62.4 times as fast as the snail . how fast does the spider travel ?

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## Sheet ( 3 )

### 1- Find the result of each following :

a)  $0.643 \times 100 = \dots\dots\dots$

b)  $1000 \times 0.16 = \dots\dots\dots$

c)  $13.51 \times 100 = \dots\dots\dots$

d)  $1.078 \times 100 = \dots\dots\dots$

e)  $1000 \times 6.7 = \dots\dots\dots$

f)  $24.61 \times 1000 = \dots\dots\dots$

g)  $0.184 \times 1000 = \dots\dots\dots$

h)  $1.089 \times 10000 = \dots\dots\dots$

### 2- Multiply then match :

1)  $4.783 \times 100 = \dots\dots\dots$

2)  $4.783 \times 10 = \dots\dots\dots$

3)  $4.783 \times 1000 = \dots\dots\dots$

4)  $3.8 \times 10000 = \dots\dots\dots$

5)  $3.8 \times 100000 = \dots\dots\dots$

a) lies between 40 and 50

b) lies between 400 and 500

c) lies between 30000 and 40000

d) lies between 4000 and 5000

e) lies between 3 thousand and 50 thousand

### 3- Complete :

a)  $87.02 \text{ km} = \dots\dots\dots \text{m}$

c)  $\text{L.E } 6.5 = \dots\dots\dots \text{pt}$

e)  $1.5 \text{ m} = \dots\dots\dots \text{cm}$

g)  $0.03 \text{ m}^2 = \dots\dots\dots \text{dm}^2$

b)  $3.2 \text{ kg} = \dots\dots\dots \text{gm}$

d)  $37.3 \text{ dm} = \dots\dots\dots \text{cm}$

f)  $2.589 \text{ m} = \dots\dots\dots \text{cm}$

h)  $3.789 \text{ km} = \dots\dots\dots \text{m}$

### 4- Put suitable sign $<$ , $>$ , $=$

a)  $7.87 \times 10$    $0.787 \times 100$

b)  $18.915 \times 100$    $1891.5 \times 100$

c)  $0.431 \times 1.2$    $4.31 \times 0.012$

d)  $32.14 \times 10$    $0.03214 \times 1000$

e)  $0.076 \times 1000$    $7.6 \times 10$

**5- Complete each of the following :**

- a)  $25.0825 \simeq \dots\dots\dots$  to nearest thousandth
- b)  $(5.423 + 9.575) \times 10 \simeq \dots\dots\dots$  to nearest tenth
- c)  $6.43 \times 5.7 \simeq \dots\dots\dots$  to nearest hundredth
- d)  $(3.45 \times 10) - 9.543 \simeq \dots\dots\dots$  to nearest hundredth
- e)  $0.8 \times 28.72 \simeq \dots\dots\dots$  to nearest hundredth

6- The price of one meter of wire is L.E 7.85 . Find the price of 3.7 metres ?

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7- If the perimeter of square is 89.4 cm . Calculate the perimeter of hundred separated squares which have the same perimeter ?

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8- Ahmed saves L.E 8.89 from his pocket money in a month calculate how much money he saves in 100 months ?

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.....  
.....  
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## Sheet (4)

### I- Divide :

a)  $99660 \div 453 = \dots\dots\dots$

b)  $19968 \div 256 = \dots\dots\dots$

c)  $19708 \div 453 = \dots\dots\dots$

d)  $37440 \div 234 = \dots\dots\dots$

e)  $9262 \div 842 = \dots\dots\dots$

f)  $25625 \div 125 = \dots\dots\dots$

g)  $42435 \div 345 = \dots\dots\dots$

h)  $6020 \div 215 = \dots\dots\dots$

### II- Choose the correct answer :

a)  $4428 \div 123 = \dots\dots\dots$

[ 36 – 35 – 34 – 32 ]

b)  $72795 \div 345 = \dots\dots\dots$

[ 311 – 111 – 211 – 231 ]

c)  $37440 \div 234 = \dots\dots\dots$

[ 160 – 170 – 200 – 190 ]

d)  $11664 \div 216 = \dots\dots\dots$

[ 54 – 58- 62 – 68 ]

e)  $15500 \div 125 = \dots\dots\dots$

[ 1240 – 124 – 125 – 120 ]

### III- Complete :

a) The number  $14.669 \simeq 14.67$  to nearest  $\dots\dots\dots$

b)  $0.483 - \frac{43}{500} \simeq \dots\dots\dots$  to the nearest hundredth

c)  $179860 \div 315 \simeq \dots\dots\dots$  to the nearest hundredth

d)  $8.458 \times 10 \simeq \dots\dots\dots$  to the nearest tenth

4- A truck can carry 175 boxes. Find the number of trips needed to transport 159591 box approximated to nearest box ?

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5- Yehia bought a piece of land 4.57 feddans if the price of one Feddan is 57.59 L.E .

Calculate the price of this land and approximate it to nearest L.E

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6- A scouting camp had 7136 pounds . If they are divided into groups each one had 22.3 scouts .

How many group are there ?

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7- A truck can carry 265 water melons . Find the number of the trips needed to transport

54060 watermelons ?

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.....  
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## Sheet ( 5 )

### 1- Find the quotient approximated to nearest two decimal place?

a)  $\frac{1}{3} \simeq \dots\dots\dots$

b)  $\frac{1}{6} \simeq \dots\dots\dots$

c)  $3 \div 11 \simeq \dots\dots\dots$

d)  $57 \div 48 \simeq \dots\dots\dots$

e)  $24 \div 108 \simeq \dots\dots\dots$

f)  $8 \div 7 \simeq \dots\dots\dots$

g)  $12929 \div 517 \simeq \dots\dots\dots$

h)  $13 \div 123 \simeq \dots\dots\dots$

### 2- Complete :

a)  $36844 \div 152 \simeq \dots\dots\dots$  to nearest thousandth

b)  $4.8 \times 3.6 \simeq \dots\dots\dots$  to nearest tenth

c)  $2 \div 3 \simeq \dots\dots\dots$  to nearest thousandth

d)  $5 \frac{3}{4} - 3 \frac{2}{200} \simeq \dots\dots\dots$  to nearest thousandth

3- Aman bought a car for L.E 170750 he paid L.E 35000 and paid the rest in 110 equal installments . Find to the nearest L.E the value of each installment .

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.....

4- The height of an insect is 7.6 mm it can jump 148 times of its own height . how high can it jump ?

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.....

5- A road of length 64987 m find its length in km approximating the result to the nearest hundredth .

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.....

6- A factory produces 265 pieces of cloth monthly in how many months does its produce 9275 pieces of cloth ?

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.....

## Sheet ( 6 )

### 1- Complete:

$$a) \frac{2}{3} = \frac{4}{\dots} = \frac{\dots}{9} = \frac{\dots}{12}$$

$$b) \frac{5}{6} = \frac{10}{\dots} = \frac{\dots}{18} = \frac{20}{\dots}$$

$$c) \frac{5}{8} = \frac{10}{\dots} = \frac{\dots}{40} = \frac{\dots}{80}$$

$$d) \frac{7}{\dots} = \frac{14}{16} = \frac{\dots}{24} = \frac{70}{\dots}$$

### 2-Put the suitable of <, >, = :

$$a) \frac{7}{15} \dots \frac{4}{15}$$

$$b) \frac{3}{5} \dots \frac{6}{10}$$

$$c) \frac{3}{8} \dots \frac{5}{8}$$

$$d) \frac{3}{7} \dots \frac{3}{8}$$

$$e) \frac{5}{7} \dots \frac{5}{8}$$

$$f) \frac{3}{8} \dots 0.7$$

### 3-Put ( $\sqrt$ ) or ( x ) :

$$a) \frac{7}{8} > \frac{78}{100} \quad ( \quad )$$

$$b) 3.7 > 4\frac{1}{9} \quad ( \quad )$$

$$c) \frac{1}{4} = 0.25 \quad ( \quad )$$

$$d) \frac{3}{16} > \frac{3}{14} \quad ( \quad )$$

$$e) 0.5 = 0.50 \quad ( \quad )$$

$$f) 0.78 > 0.87 \quad ( \quad )$$

**4-Arrange each of the following in an ascending order :-**

a)  $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{3}{4}$

.....

b)  $\frac{2}{9}, \frac{5}{6}, \frac{1}{3}, \frac{5}{7}$

.....

c)  $4\frac{2}{7}, 4\frac{1}{5}, 4\frac{13}{35}, 5\frac{1}{2}$

.....

**5- Arrange each of the following in descending order :-**

a)  $\frac{7}{9}, \frac{2}{3}, \frac{5}{6}, \frac{1}{4}$

.....

b)  $2\frac{1}{9}, 2\frac{1}{7}, 2\frac{1}{8}, 2\frac{3}{4}$

.....

c)  $\frac{7}{12}, \frac{7}{24}, \frac{7}{18}, \frac{7}{33}$

.....

d)  $4\frac{7}{12}, 5\frac{7}{18}, 3\frac{7}{9}, 2\frac{1}{4}$

.....

e)  $\frac{7}{170}, \frac{170}{17000}, \frac{17}{17}, \frac{170}{17}$

.....

## Sheet (7)

### 1- Multiply , then write the answer in the simplest form :-

a)  $\frac{1}{5} \times \frac{2}{5} = \dots = \dots$

b)  $\frac{5}{7} \times \frac{1}{2} = \dots = \dots$

c)  $32 \times \frac{5}{8} = \dots = \dots$

d)  $3\frac{1}{2} \times 4\frac{2}{5} = \dots = \dots$

e)  $9\frac{2}{6} \times \frac{1}{3} = \dots = \dots$

f)  $2\frac{1}{2} \times 1\frac{1}{10} = \dots = \dots$

### 2-Find the missing factor :

a)  $\frac{3}{5} \times \dots = \frac{9}{25}$

b)  $\dots \times \frac{3}{8} = \frac{15}{48}$

c)  $4\frac{1}{2} \times \dots = 9$

d)  $7\frac{1}{3} \times \dots = 22$

3- Yehia is tiling  $\frac{2}{5}$  of the bathroom wall , if a quartered ceramic tiles is red . How much of the bathroom wall be covered with red tiles ?

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.....  
.....  
.....

4- If  $\frac{5}{8}$  of a 32 pupil class play football . how many pupils play football ?

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.....  
.....  
.....

5- The perimeter of a square is  $\frac{8}{11}$  m . Find the length of each side of the square

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.....  
.....  
.....

6- Mariam went to the market she bought 4.7 kg of fish each for 15 pounds each and 4 kg of apples each for 9.25 .How many pounds did she pay ?

.....  
.....  
.....

## Sheet (8)

### I- Divide

a)  $5\frac{2}{3} \div 3\frac{1}{2} = \dots\dots\dots$

b)  $2\frac{3}{4} \div 1\frac{4}{5} = \dots\dots\dots$

c)  $\frac{7}{10} \div \frac{2}{5} = \dots\dots\dots$

d)  $2\frac{1}{4} \div 9 = \dots\dots\dots$

e)  $\frac{3}{4} \div \frac{9}{10} = \dots\dots\dots$

f)  $\frac{4}{5} \div \frac{1}{2} = \dots\dots\dots$

### 2- Put the suitable sign >, <, =

a)  $\frac{4}{5} \dots\dots\dots \frac{2}{3}$

b)  $7 \times \frac{1}{3} \dots\dots\dots 2\frac{1}{3}$

c)  $\frac{3}{4} \div \frac{2}{3} \dots\dots\dots \frac{5}{7}$

d)  $\frac{1}{2} \div \frac{3}{10} \dots\dots\dots \frac{2}{5} \div \frac{5}{7}$

e) The reciprocal of  $\frac{2}{3} \dots\dots\dots \frac{2}{3}$

3- If the length of four pieces of cloth is  $13\frac{1}{3}$  meters . Find the length of one piece ?

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.....  
.....  
.....

4. How many  $\frac{3}{4}$  are there in  $7\frac{1}{2}$  oranges ?

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5. A man earns L.E  $14\frac{1}{4}$  in 3 days . How much does he earn in one day ?

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Sheet ( 9 )

**1) State which of the following is set or not?**

- a) The colours of the Egyptian flag . (.....)
- b) intelligent pupils in the class. (.....)
- c) Months in the Hejira calendar. (.....)
- d) Arabic countries . (.....)
- e) Big numbers . (.....)
- f) Seasons of the years. (.....)
- g) Arabic countries . (.....)
- h) the letters in the English alphabet. (.....)
- i) The letters in the word Mathematics. (.....)

**2) Write two elements only of each of the following :**

- a) The months of the Christian calender .  
.....
- b) World continents  
.....
- c) Arabic currencies  
.....
- d) Mathematical operations  
.....
- e) The prime factors of 12  
.....

**3) Express each of the following :-**

- a) A = the set of the digits in the number 79190  
.....
- b) F = the set of the months of the year beginning with "J"  
.....
- c) H = the set of the rivers in Egypt  
.....
- d) K = the set of the first five letters of the English alphabet  
.....
- e) J = the set of number on a dice  
.....
- f) E = the set of the days in the week  
.....

**4) Express each of the following sets in words :-**

- a)  $x = \{ 2, 4, 6, 8 \}$  .....
- b)  $A = \{ A, H, M, E, D \}$  .....
- c)  $B = \{ a, l, i \}$  .....
- d)  $z = \{ 2, 3, 5, 7 \}$  .....
- e)  $E = \{ 6 \}$  .....
- f)  $\{ 1, 3, 5, 7 \}$  .....

**5) Complete using the suitable sign  $\in$  ,  $\notin$**

- a)  $4 \dots\dots\dots \{ 4, 6 \}$                       b)  $0 \dots\dots\dots \{ 30, 40 \}$
- c)  $2 \dots\dots\dots \{ 12, 22 \}$                       d)  $40 \dots\dots\dots \{ 40, 30, 50 \}$
- e)  $67 \dots\dots\dots \{ 9, 6, 76 \}$                       f)  $m \dots\dots\dots ( m, k, n )$
- g)  $\frac{3}{8} \dots\dots\dots \{ 2, 3, 8, 7 \}$                       i)  $11 \dots\dots\dots \{ 5116 \}$

**6- Complete by using suitable symbol of  $=$  or  $\neq$**

- a)  $\{ 5 \} \dots\dots\dots \{ 5 \}$                       b)  $\{ 1, 2 \} \dots\dots\dots \{ 2, 1 \}$
- c)  $\{ 6, 2, 3 \} \dots\dots\dots \{ 26, 3 \}$                       d)  $\{ 35 \} \dots\dots\dots \{ 53 \}$
- e)  $\{ khaled \} \dots\dots\dots \{ k, h, a, l, e, d \}$                       f)  $\{ 12 \} \dots\dots\dots \{ \text{set of years} \}$

**7- Find the value of x :**

- a)  $\{ x \} = \{ 3 \}$                       then  $x = \dots\dots\dots$
- b)  $\{ 1, 4 \} = \{ x, 1 \}$                       then  $x = \dots\dots\dots$
- c)  $\{ 6, x-1 \} = \{ 6, 3 \}$                       then  $x = \dots\dots\dots$
- d)  $\{ x+5 \} = \{ 9 \}$                       then  $x = \dots\dots\dots$
- e)  $\{ 2, 4, x+1 \} = \{ 2, 5, 4 \}$                       then  $x = \dots\dots\dots$

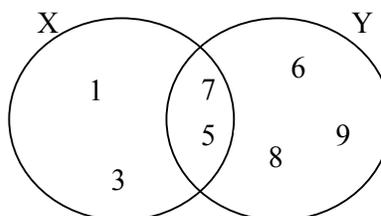
## Sheet (10)

### I- Write the type of the set ( finite , infinite , empty ) :-

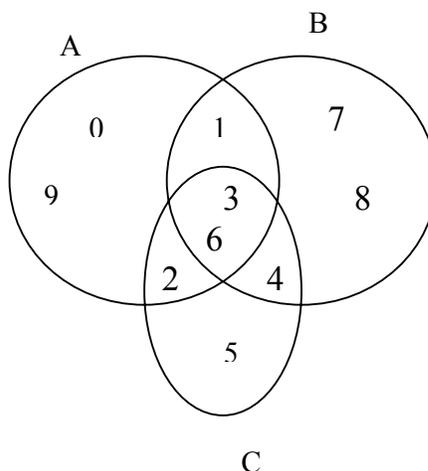
- a) The set of Arabic countries in Australia (.....)
- b) The set of prime factors of 13 (.....)
- c) The odd numbers between 13 and 15 (.....)
- d) The set of even number less than 10 (.....)
- e) The set of triangles having 4 sides (.....)

### II- Using sign of $\in, \notin$

- a)  $1 \dots\dots x$  ,  $5 \dots\dots x$
- b)  $3 \dots\dots y$  ,  $7 \dots\dots x$
- c)  $6 \dots\dots x$  ,  $9 \dots\dots y$
- d)  $8 \dots\dots y$  ,  $1 \dots\dots x$



### III- Using of diagram :-



- A= { ..... }
- B= { ..... }
- C= { ..... }

### 4- Put the suitable ( $\in, \notin, \subset, \varnothing$ )

- a)  $\{ 2 , 3 \} \dots\dots \{ 1 , 2 , 3 \}$
- b)  $\{ b \} \dots\dots \{ b , c \}$
- c)  $32 \dots\dots \{ 32 \}$
- d)  $\{ 0 \} \dots\dots \emptyset$
- e)  $52 \dots\dots$  the set of digits of the number 5252
- f)  $1 \dots\dots \{ 0 , 10 \}$

g)  $5 \subset \{ 55 \}$

h)  $\{ 22 \} \subset \{ 2 \}$

i)  $\{ 3, 5, 6 \} \subset \{ 3, 5 \}$

**5- Find the number x so that each :-**

a)  $\{ x \} \subset \{ 5 \}$

$x = \dots\dots\dots$

b)  $\{ 0 \} \subset \{ 2, x, 5 \}$

$x = \dots\dots\dots$

c)  $\{ x \} \subset \{ 1, 2 \}$

$x = \dots\dots\dots$

d)  $\{ 5, x \} \subset \{ 3, 5, 7, 9 \}$

$x = \dots\dots\dots$

e)  $\{ 2 \} \not\subset \{ 5, x \}$

$x = \dots\dots\dots$

f)  $\{ 1, 3, 7 \} \not\subset \{ 1, 3, x \}$

$x = \dots\dots\dots$

g)  $\{ 7, 9 \} \subset \{ 5, 7, x \}$

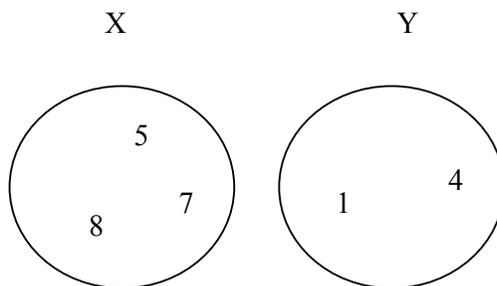
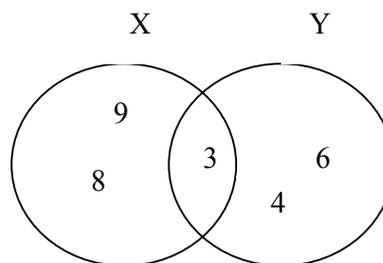
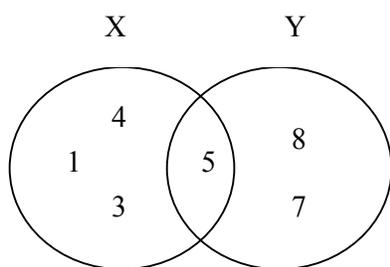
$x = \dots\dots\dots$

h)  $\{ 3, x - 1 \} \subset \{ 4, 3 \}$

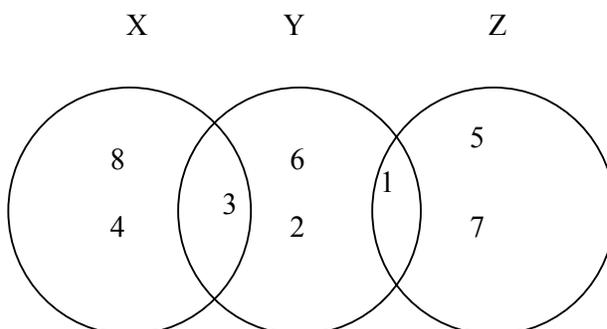
$x = \dots\dots\dots$

## Sheet ( 11 )

**1) By using the following figures . Find  $x \cap y$  :**



**2) The Venn diagram below shows sets x & y & z :**



**List of element :**

a)  $x \cap y$

.....

b)  $x \cap z$

.....

c)  $x \cap z$

.....

d)  $x \cap y \cap z$

.....

**3) Find of each following :**

a)  $\{2, 3, 4\} \cap \{3, 5, 2, 6\}$

d)  $\emptyset \cap \{5, 6, 7\}$

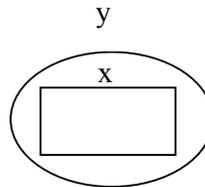
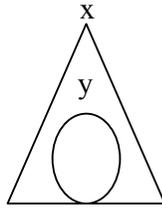
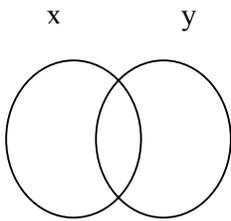
b)  $\{46\} \cap \{64\}$

e)  $\emptyset \cap \emptyset$

c)  $\{ \} \cap \{0\}$

f)  $\{44\} \cap \{4\}$

**4- If each of the following shade the part represent  $x \cap y$**



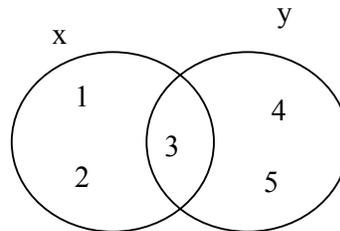
**5- Put the suitable sign  $\in, \notin, \subset, \not\subset$**

a)  $3 \dots\dots\dots (x \cap y)$

b)  $\{1, 2, 5\} \dots\dots\dots x \cap y$

c)  $\{3\} \dots\dots\dots x \cap y$

d)  $\{3, 4\} \dots\dots\dots x \cap y$



**6- Choose the correct answer :**

a)  $x = \{2, 5\} \cap \{5, 7, 8\}$  then  $x = \dots\dots\dots$

[ 2 , 5 , 7 , 8 ]

b)  $\{4, 3\} \cap \{x, 1, 2\} = \{3\}$  than  $x = \dots\dots\dots$

[ 1 , 2 , 3 , 4 ]

c) If  $\{2\} \cap \{x\} = \{2\}$  ,then  $x = \dots\dots\dots$

[ 22 , 2 , zero ,  $\emptyset$  ]

d) If  $\{15, x\} \cap \{5, 1\} = \{5\}$  ,then  $x = \dots\dots\dots$

[ 15 , 5 , 1 , zero ]

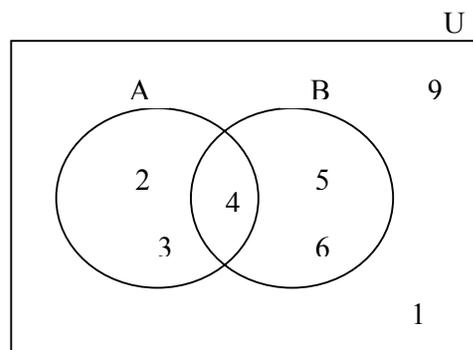
e) If  $\{5, 3\} \cap \{3, 9\} = \{x\}$  then  $x = \dots\dots\dots$

[ 9 , 3 , 5 , 9 ]

## Sheet ( 12 )

### 1. By using the opposite Venn diagram find :-

- a)  $A =$  .....
- b)  $B =$  .....
- c)  $A \cap B =$  .....
- d)  $A \cup B =$  .....
- e)  $U \cup A =$  .....
- f)  $A \cap U =$  .....



### 2- Choose the correct answer :

- a)  $\{ 1, 9 \}$  .....  $\{ 1, 2, 3, 9, \dots, 11 \}$  [  $\subset, \in, \notin, \not\subset$  ]
- b) If  $\{ 3, 6, 9 \} = \{ 9, x, 3 \}$  then  $x =$  ..... [  $3, 6, 9, 0$  ]
- c) Number of subsets of the set  $\{ 7 \} =$  ..... [  $1, 2, 3, 7$  ]
- d)  $\emptyset$  .....  $\{ 0 \}$  [  $=, \subset, \in, \notin$  ]

3- If  $U = \{ 1, 2, 3, 5, 6, 9 \}$ ,  $x = \{ 1, 2, 3 \}$   
 $y = \{ 2, 3, 5 \}$  Draw the Venn diagram, then find :-

- a)  $x \cap y =$  .....
- b)  $x \cup y =$  .....
- c)  $x \cup U =$  .....
- d)  $x \cap U =$  .....

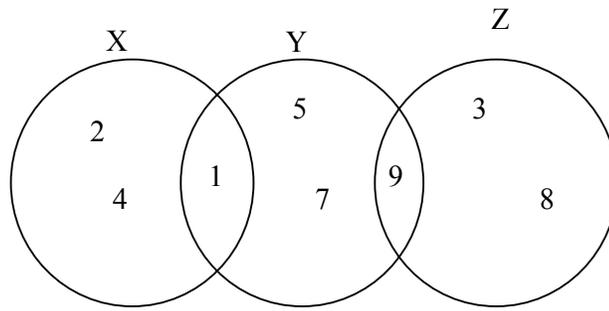
### 4- Complete :

- a)  $x \cap x =$  .....
- b)  $x \cup x =$  .....
- c)  $x \cup \emptyset =$  .....
- d)  $x \cap \emptyset =$  .....

Sheet ( 13 )

**1- Using of opposite Venn diagram :**

- a)  $x \cap z = \dots\dots\dots$
- b)  $x - y = \dots\dots\dots$
- c)  $y - z = \dots\dots\dots$
- d)  $x \cup y = \dots\dots\dots$
- e)  $z - x = \dots\dots\dots$
- f)  $z - y = \dots\dots\dots$



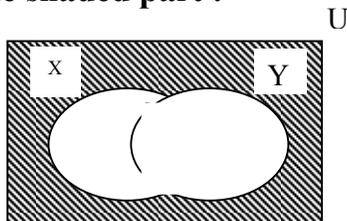
**2- Put the suitable sign of  $\in, \notin, \subset, \not\subset$**

- a)  $12 \dots\dots\dots \{ 10, 2 \}$
- b)  $\{ 7 \} \dots\dots\dots$  the set of odd numbers .
- c)  $3 \dots\dots\dots \{ 3 \}$
- d)  $\emptyset \dots\dots\dots \{ 0 \}$
- e)  $\{ 2, 5, 9 \} \dots\dots\dots$  the set of prime numbers.

**3-  $U = \{ 1, 2, 3, 4, 5, 6, 7 \}, x = \{ 1, 3, 5, 7 \}, y = \{ 2, 4, 6 \}$**

- a)  $(x \cap y)' = \dots\dots\dots$
- b)  $x' \cup y' = \dots\dots\dots$
- c)  $x - y = \dots\dots\dots$
- d)  $x \cap y' = \dots\dots\dots$

**4- Express the shaded part : -**

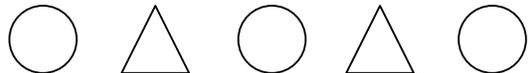
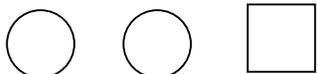
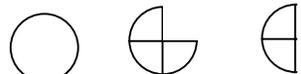


**5- Choose the correct answer :**

- a)  $35 \dots\dots\dots \{ 5, 3, 53 \} [ \in, \notin, \subset, \not\subset ]$
- b)  $\emptyset \dots\dots\dots \{ 3, 5 \} [ \in, \notin, \subset, \not\subset ]$
- c) If  $x = \{ 4, 5 \} - \{ 1, 4, 7 \}$ , then  $x = \dots\dots\dots [ 1, 4, 5, 7 ]$
- d)  $(x')' = \dots\dots\dots [ x, \cup, x', \emptyset ]$
- e) Every rectangle is  $\dots\dots\dots [ \text{square, rhombus, parallelogram} ]$

Sheet (14)

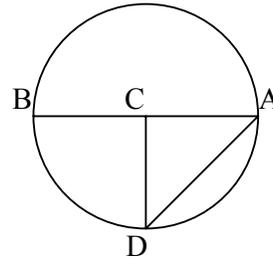
**1- Discover the rule and find the text one:**

- (a)  .....
- (b)  .....
- (c)  .....

**2- Complete:**

- (a) the chord is a .....
- (b) the diameter is the longest .....
- (c) the diameter length = 2 x the length .....
- (d) in the opposite figure:

- (1)  $\overline{AB}$  is a ..... in the circle.
- (2)  $\overline{BC}$  is a .....in the circle.
- (3) The point ..... is the centre of the circle.
- (4)  $\overline{AD}$  is a ..... in the circle.



**3- Draw a line segment with the length given. Use it as a radius to construct a circle.**

- (a) 2 . 5 cm
- (b) 4 cm

4- Draw the circle M with radius length 5 cm, then draw the diameter AB and the two chords AC and BC find the type of the triangle ABC according to the measures of its angles.

5 – Draw the circle M with diameter length 6 cm. and draw two perpendicular diameters BD and AC , then draw AB , BC, CD and DA what can we say about the polygon ABCD?

## Sheet (15)

- 1 – Draw the triangle  $xyz$  in which  $xy = 10$  cm,  $yz = 8$  cm. and  $xz = 6$  cm , then find the measure of the angle  $xzy$  , what do you notice ?
  - 2 – Draw the triangle  $ABC$  in which  $AB = 7$  cm,  $BC = 3.5$  cm and  $AC = 4.5$  cm . find the type of the triangle according to its side lengths.
  - 3– Draw the triangle  $ABC$  in which  $AB = AC = 4$  cm and  $BC = 7$  cm , then find the kind of the triangle according to the measures of its angles.
  - 4– Draw the triangle  $ABC$  where  $AB = AC = 5$  cm and  $BC = 6$  cm , in which  $D$  is the midpoint of  $BC$ , then draw  $\overline{AD}$  and the find the measure of  $(\angle ADB)$  and find the length of the line segment  $AD$ .
  - 5– Draw the triangle  $ABC$  in which  $AB = 10$  cm,  $BC = CA = 7$ cm. What type of  $\Delta ABC$  according to its sides?
  - 6– Draw a circle whose diameter is 8cm. Long and its centre is  $O$  ,  $\overline{AB}$  is a diameter of this circle  
Draw the triangle  $DAB$  where  $DA = BD = 8$  cm ,  $\overline{DA}$  and  $\overline{DB}$  cut the circle in  $x$  and  $y$  respectively.
-

## Sheet (16)

- 1 - Draw the triangle ABC in which  $AB = AC = 8\text{cm}$ . and  $BC = 6\text{cm}$  . Draw its three altitudes then find the length of each one of them (the heights) , what do you notice?
- 2- Draw the triangle LMN in which  $LM = 6\text{ cm}$  , and  $LN = MN = 5\text{ cm}$ , using your geometric instruments, draw the three altitudes LX , MY and NZ , and find the Length of each one of them.
- 3- Draw the triangle XYZ in which  $XY = 6\text{ cm}$ ,  $YZ = 8\text{ cm}$ . and  $m(\angle Y) = 120^\circ$  Draw the three perpendicular Line segments , then measure their lengths ( the heights ).
- 4- Draw the equilateral triangle ABC whose perimeter is  $18\text{ cm}$  , then draw the three altitudes of this triangle . what do you notice?

## Sheet (17)

**1 – As rolling a fair die and observing the upper face , complete the following:**

- (a) the probability of appearance of the number 4 = .....
- (b) the probability of appearance of an even number = .....
- (c) the probability of appearance of a prime number = .....
- (d) the probability of appearance of a number divisible by 5 = ...
- (e) the probability of appearance of a number less than or equal 6 = .....

**2 – Complete :**

- (a) if a coin is flipped once , then the probability of appearance of a head = .....
- (b) A box has 5 white balls , 7 red balls, 3 blue . if a ball is drawn randomly from the box , then the probability that the ball is blue = .....
- (c) if one of the digits of the number 867742231 is selected randomly , then the probability that the selected number is even equals .....
- (d) A box contains 48 oranges and 4 oranges of them are bad . if an orange is drawn randomly , then the probability that the drawn orange is bad = ..... and the probability that the orange is good = .....

3– A bag contains 5 red balls , 3 yellow balls and 2 black balls. If all balls are alike and a ball is drawn from the bag randomly , find :

- (a) the probability that the drawn ball is yellow
- (b) the probability that the drawn ball is yellow or red
- (c) the probability that the drawn ball is not yellow