





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 :**

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

$\dots\dots\dots$

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

$\dots\dots\dots$

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

$\dots\dots\dots$

$$\begin{array}{r} 0.555 \\ \times 0.3 \\ \hline \end{array}$$

$\dots\dots\dots$

$$\begin{array}{r} 9.11 \\ \times 0.01 \\ \hline \end{array}$$

$\dots\dots\dots$

$$\begin{array}{r} 79.7 \\ \times 0.001 \\ \hline \end{array}$$

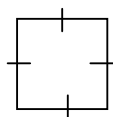
$\dots\dots\dots$



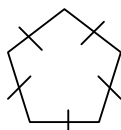
**V-Put the suitable sign < , > , =**

- |                        |                      |                      |
|------------------------|----------------------|----------------------|
| a) $0.3 \times 1.5$    | <input type="text"/> | $3 \times 0.5$       |
| b) $4.2 \times 1.53$   | <input type="text"/> | $4.2 \times 15.3$    |
| c) $65.9 \times 100$   | <input type="text"/> | $659 \times 10$      |
| d) $0.206 \times 0.9$  | <input type="text"/> | $0.206 \times 0.009$ |
| e) $0.891 \times 0.01$ | <input type="text"/> | $891 \times 0.0001$  |

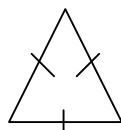
**6- Calculate the perimeter of each of the following :**



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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.....  
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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 ?

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

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 ?

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



## Sheet ( 3 )

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

- |   |   |
|---|---|
| a) $0.643 \times 100 = \dots\dots\dots$ | e) $1000 \times 6.7 = \dots\dots\dots$    |
| b) $1000 \times 0.16 = \dots\dots\dots$ | f) $24.61 \times 1000 = \dots\dots\dots$  |
| c) $13.51 \times 100 = \dots\dots\dots$ | g) $0.184 \times 1000 = \dots\dots\dots$  |
| d) $1.078 \times 100 = \dots\dots\dots$ | h) $1.089 \times 10000 = \dots\dots\dots$ |

### 2- Multiply then match :

- |  |  |
|--|--|
| 1) $4.783 \times 100 = \dots\dots\dots$  | a) lies between 40 and 50                  |
| 2) $4.783 \times 10 = \dots\dots\dots$   | b) lies between 400 and 500                |
| 3) $4.783 \times 1000 = \dots\dots\dots$ | c) lies between 30000 and 40000            |
| 4) $3.8 \times 10000 = \dots\dots\dots$  | d) lies between 4000 and 5000              |
| 5) $3.8 \times 100000 = \dots\dots\dots$ | e) lies between 3 thousand and 50 thousand |

### 3- Complete :

- |   |  |
|---|--|
| a) $87.02 \text{ km} = \dots\dots\dots \text{m}$    | b) $3.2 \text{ kg} = \dots\dots\dots \text{gm}$  |
| c) $\text{L.E } 6.5 = \dots\dots\dots \text{pt}$    | d) $37.3 \text{ dm} = \dots\dots\dots \text{cm}$ |
| e) $1.5 \text{ m} = \dots\dots\dots \text{cm}$      | f) $2.589 \text{ m} = \dots\dots\dots \text{cm}$ |
| g) $0.03 \text{ m}^2 = \dots\dots\dots \text{dm}^2$ | h) $3.789 \text{ km} = \dots\dots\dots \text{m}$ |

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

- |                        |                      |                       |
|------------------------|----------------------|-----------------------|
| a) $7.87 \times 10$    | <input type="text"/> | $0.787 \times 100$    |
| b) $18.915 \times 100$ | <input type="text"/> | $1891.5 \times 100$   |
| c) $0.431 \times 1.2$  | <input type="text"/> | $4.31 \times 0.012$   |
| d) $32.14 \times 10$   | <input type="text"/> | $0.03214 \times 1000$ |
| e) $0.076 \times 1000$ | <input type="text"/> | $7.6 \times 10$       |



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

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



## 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 .

.....

.....

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 .

.....

.....

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 ( √ ) or ( x ) :

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

b)  $3.7 > 4\frac{1}{9}$  (      )

c)  $\frac{1}{4} = 0.25$  (      )

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

e)  $0.5 = 0.50$  (      )

f)  $0.78 > 0.87$  (      )



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

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

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

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

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

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

### 2-Find the missing factor :

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

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

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

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

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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.....

.....

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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 ?

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

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

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

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

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



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

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

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

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

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



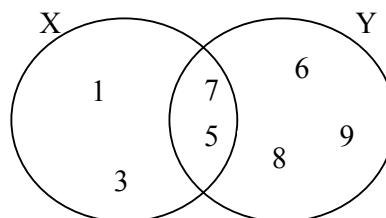
## Sheet (10)

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

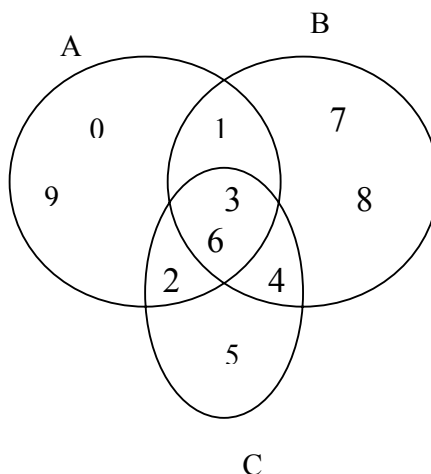
- a) The set of Arabic countries in Australia (.....)
- b) The set of prime factors of 13 (.....)
- c) The odd numbers between 13 and 15 (.....)
- d) The set of even number less than 10 (.....)
- e) The set of triangles having 4 sides (.....)

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

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



### III- Using of diagram :-



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

### 4- Put the suitable ( $\in, \notin, \subset, \not\subset$ )

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



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

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

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

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

$x = \dots\dots\dots$

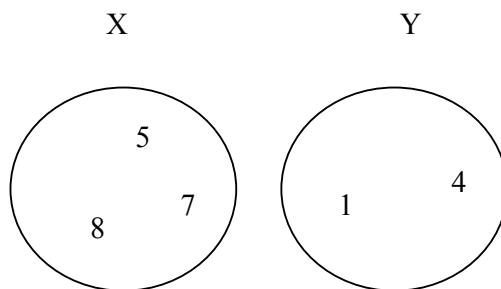
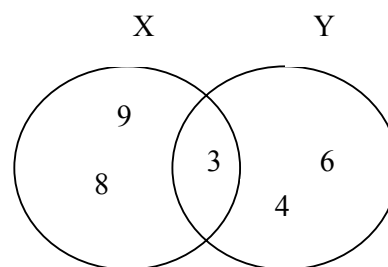
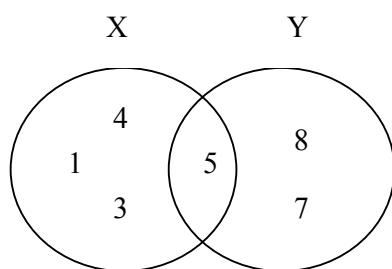
h)  $\{ 3, x - 1 \} \subset \{ 4, 3 \}$

$x = \dots\dots\dots$

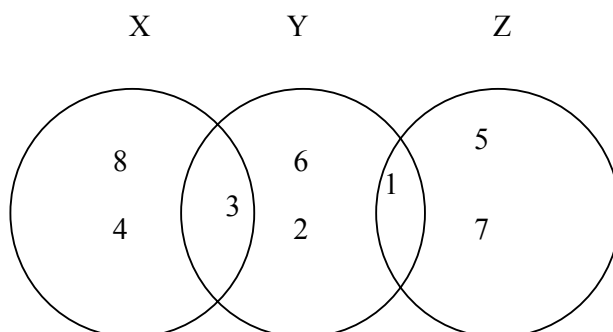


## Sheet ( 11 )

**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)  $x \cap y \cap z$

.....

d)  $x \cap y \cap z$

.....



### 3) Find of each following :

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

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

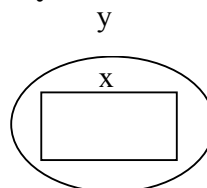
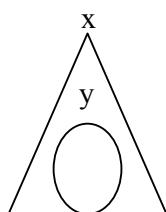
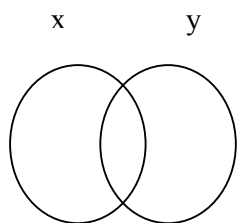
b)  $\{ 46 \} \cap \{ 64 \}$

e)  $\emptyset \cap \emptyset$

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

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

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



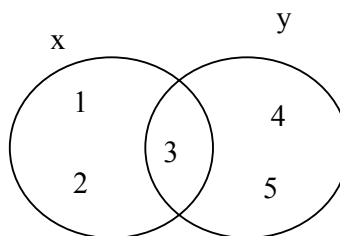
### 5- Put the suitable sign $\in, \notin, \subset, \not\subset$

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  $x = \dots\dots\dots$

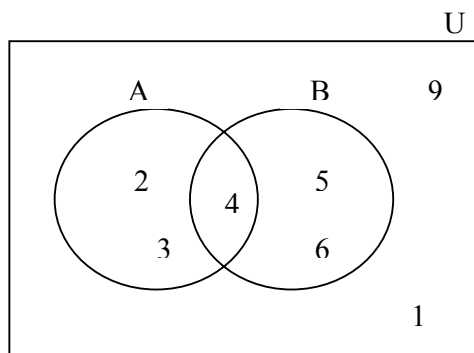
[ 9, 3, 5, 9 ]



## 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)  $x \cap z = \dots\dots\dots$

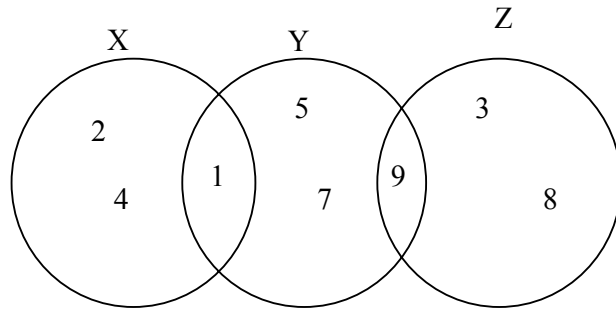
b)  $x - y = \dots\dots\dots$

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

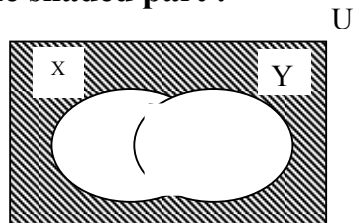
a)  $(x \cap y)' = \dots\dots\dots$

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)  $35 \dots\dots\dots \{ 5, 3, 53 \} \quad [ \in, \notin, \subset, \not\subset ]$

b)  $\emptyset \dots\dots\dots \{ 3, 5 \} \quad [ \in, \notin, \subset, \not\subset ]$

c) If  $x = \{ 4, 5 \} - \{ 1, 4, 7 \}$ , then  $x = \dots\dots\dots [ 1, 4, 5, 7 ]$

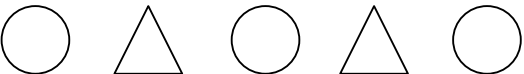
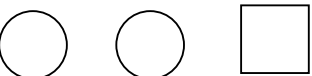
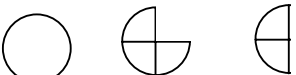
d)  $(x')' = \dots\dots\dots [ x, \cup, x', \emptyset ]$

e) Every rectangle is  $\dots\dots\dots [ \text{square, rhombus, parallelogram} ]$



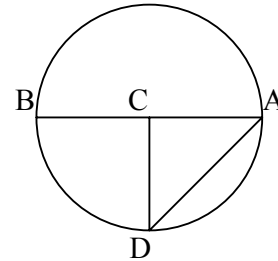
## Sheet (14)

### 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