The Vision of the School: *Distinct Environment for Refined Education*

St. Fatima Language Schools

Work sheets Primary 6

2023/2024

Second term

Supervisor :Maha Ahmed

Name : ……..

Class : ……

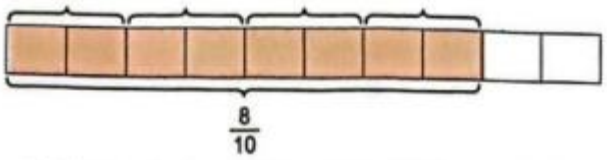
Unit 8
Sheet (1)

Use the tape diagram to find:

Examples :

a) $\frac{8}{10} \div 4 =$ ……..

$= \frac{2}{10} = \frac{1}{5}$ in simplest form

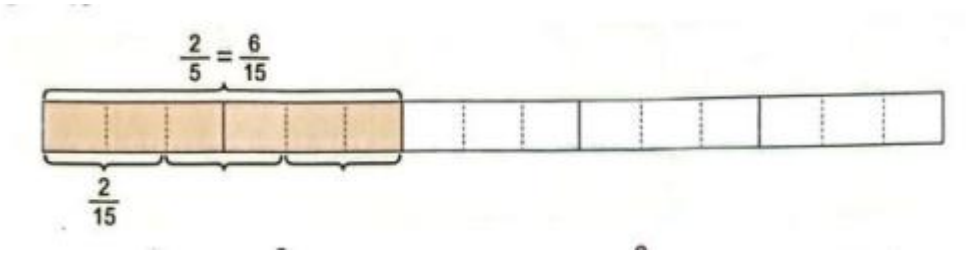


b) $\frac{2}{5} \div 3 =$ ……

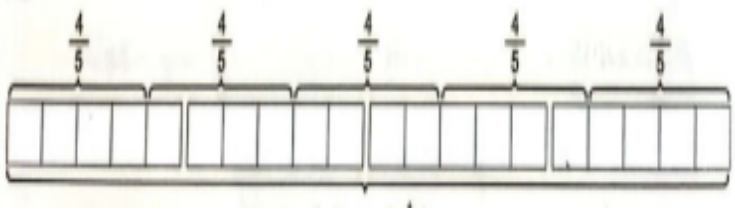
We can't divide 2 parts among 3 equals groups so we use the equivalent fractions

$\frac{2}{5} = \frac{6}{15}$

$\frac{6}{15} \div 3 = \frac{2}{15}$



c) $4 \div \frac{4}{5} =$ …… $= 5$



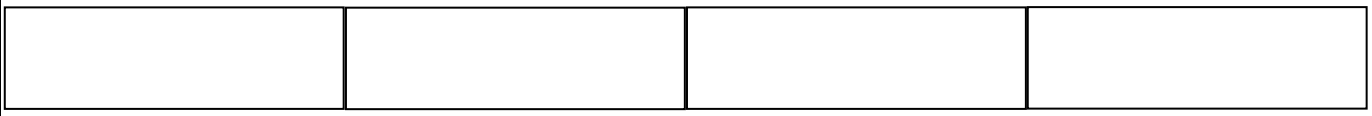
1) <u>Use the tape diagram to find :</u>

a) $\frac{3}{4} \div 2 =$ **……..**

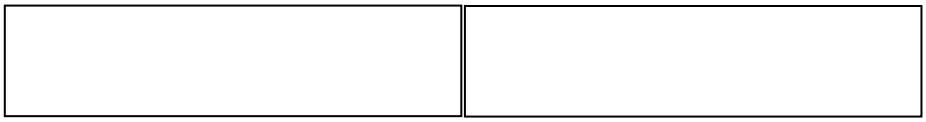
b) $\frac{2}{3} \div 4 =$ **……..**

c) $\frac{1}{5} \div 3 =$ **……..**

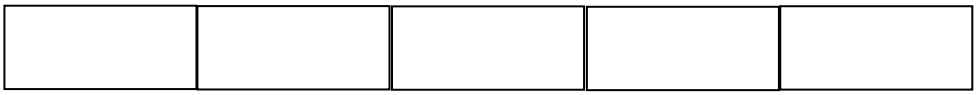
d) $4 \div \frac{3}{4} =$ **……..**



e) $2 \div \frac{5}{6}$ = ...



f) $5 \div \frac{2}{3}$ = ...

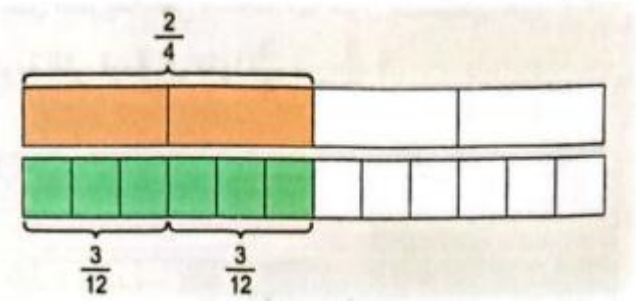


Sheet (2)

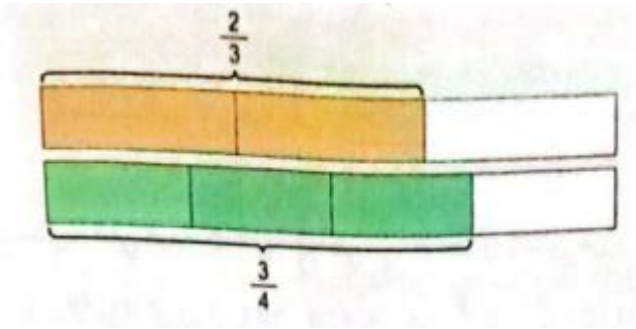
Example : use the tape diagram to find :

a) $\frac{2}{4} \div \frac{3}{12}$ = ……

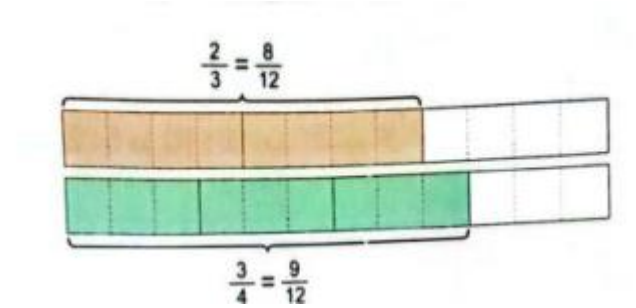
= 2



b) $\frac{2}{3} \div \frac{3}{4}$ = ……



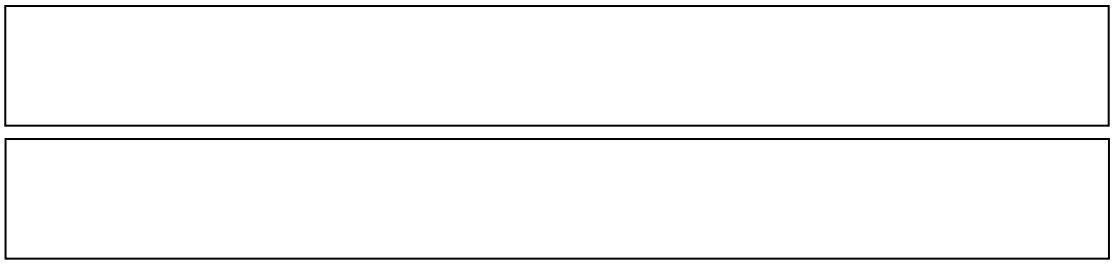
We use the L.C.M , because we can't determine the number of equal parts with value $\frac{3}{4}$ each one in $\frac{2}{3}$



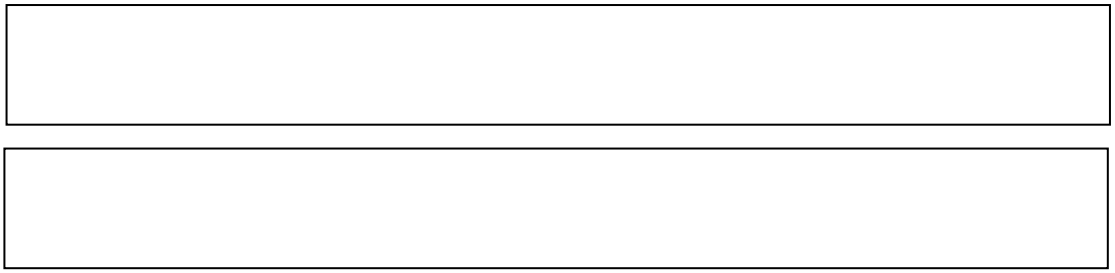
The answer = $\frac{8}{9}$

1) <u>Use the tape diagram to find :</u>

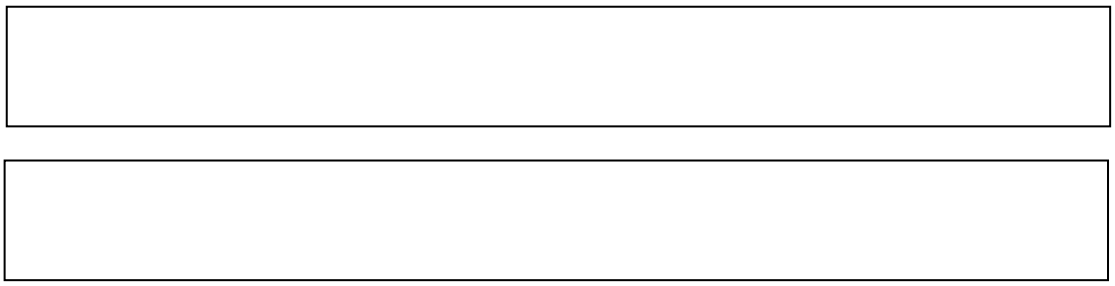
a) $\frac{1}{3} \div \frac{1}{2}$ = ……..



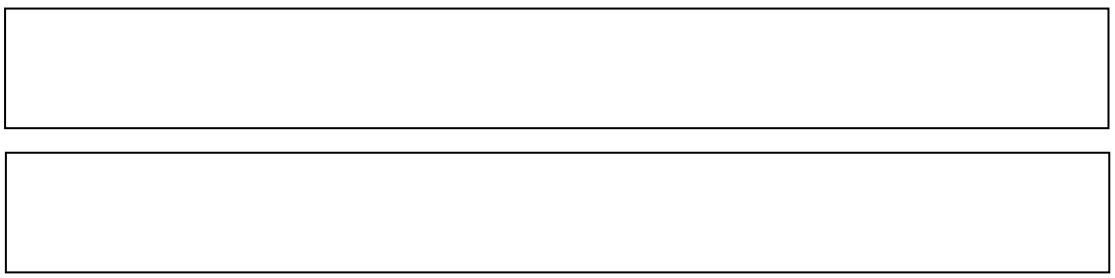
b) $\frac{2}{3} \div \frac{1}{6}$ = ……



c) $\frac{5}{8} \div \frac{3}{4}$ = ……



d) $\frac{1}{2} \div \frac{2}{5}$ = ……



Sheet (3)

1) Aly has $\frac{3}{5}$ meter of cloth , he cut it into 3 equal parts .Find the length of each part using the tape diagram

……

……

……

……

2) Mona has 2 Kg of lemons , she wants to put $\frac{2}{3}$ Kg of it in each bag

Find the number of bags which Mona needs using the tape diagram

……

……

……

……

3) A teacher wants to cut $\frac{8}{10}$ Kg of clay into pieces , the mass of each piece is $\frac{3}{5}$ Kg

How many pieces could he make? using the tape diagram

……

……

……

……

Sheet (4)

1) Find the reciprocal of each of the following :

a) $\frac{2}{5}$ = ……

b) $\frac{4}{9}$ =……

c) 7 = ……

d) $4\frac{1}{6}$ = ……

2) Find the quotient in the simplest form :

a) $\frac{3}{4} \div \frac{5}{6}$ = ……

b) $\frac{3}{8} \div \frac{21}{16}$ = ……

c) $\frac{4}{5} \div \frac{4}{5}$ = ……

d) $\frac{2}{5} \div 18$ = ……

e) $20 \div \frac{5}{9}$ = ……

3) Complete :

a) $\frac{2}{5} \div$…… = $\frac{2}{5}$ x 7

a) ……$\div \frac{1}{8} = 2$ x ……

b) ……$\div \frac{3}{7} = \frac{4}{11}$ x ……

c) $\frac{7}{12} \div$…… =……x $\frac{4}{3}$

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

a) The reciprocal of 6 is …….. (6 , 16 , 1 , $\frac{1}{6}$)

b) The reciprocal of $\frac{2}{7}$ is …….. (7 , 2 , $\frac{2}{7}$, $\frac{7}{2}$)

c) $\frac{8}{10}$ …….. the reciprocal of $\frac{5}{4}$ (< , > , =)

d) $\frac{1}{2}$ = ……..÷ $\frac{5}{8}$ ($1\frac{1}{4}$, $\frac{4}{5}$, $\frac{5}{16}$, $\frac{8}{5}$)

e) The product of any number and its reciprocal = ……. (0 , 1 , 2 , half)

f) how many $\frac{1}{6}$ are there in $\frac{1}{2}$ apple ? ($\frac{1}{12}$, 1 , 12 , 3)

5) <u>Match :</u>

a)	$\frac{3}{10}$ x $\frac{5}{6}$	$\frac{3}{5} \div \frac{3}{5}$
b)	$\frac{8}{9}$ x $\frac{3}{4}$	$\frac{1}{2} \div 2$
c)	$\frac{5}{8}$ x $\frac{8}{5}$	$\frac{2}{3} \div 4$
d)	$\frac{4}{9}$ x $\frac{3}{8}$	$\frac{2}{5} \div \frac{3}{5}$

6) Ahmed distributed 6 cakes among children , each one took $\frac{3}{4}$ piece .

Find the number of the children

……

Sheet (5)

1) Determine the place of the decimal point :

a) 1.2 x 2.4 = 288

b) 3.14 x 0.05 = 1570

c) 0.24 x 0.398 = 9552

d) 0.09 x 0.3 = 27

2) Multiply :

a) 0.15 x 2 = ……..

b) 3.6 x 2.5 = ……..

c) 6.461 x 3.8 = ……..

d) 1.88 x 0.04 = ……..

3) A family consumes 0.25 k of sugar daily ,if the price of one k is 35.27 L.E

Find the price of sugar consumed by the family weekly

……

……

Sheet (6)

1) **Divide** :

a) 4 ÷ 0.2 = ……..

b) 18 ÷ 0.09 = ……..

c) 2 ÷ 0.25 = ……..

d) 25.5 ÷ 2.55 = ……...

2) **Put < , > , = :**

a) 1.9 x 1.5 …… 2.58

b) 40 …… 4.4 ÷ 0.11

c) 14 x 0.28 …… 1.4 x 2.8

d) 0.1 x 0.12 …… 0.288 ÷ 0.24

3) If 362 .5 L.E was distributed among excellent pupils and each one took 14.5 L.E

Find the number of excellent pupils

……...

4) If the price of a can of juice is 18.75 L.E , what is the total cost of 32 cans of the same kind ?

……..

Revision on unit 8

1) Choose the right answer :

a) $6 \div \frac{2}{3}$ = …….. (4 , 8 , 12 , 9)

b) The reciprocal of the number 5 is …… ($\frac{1}{4}$, 5 , 3 , $\frac{1}{5}$)

c) If $8 \div \frac{1}{4}$ = n , then n = …….. (2 , 32 , 48 , $\frac{1}{2}$)

d) 75 x 0.31 …….. 7.5 x 3.1 (< , > , =)

e) 1.8 x ……..18000 (10 , 100 , 1000 , 10000)

f) ……..÷ 0.3 = 12 ÷3 = (0.12 , 1.2 , 12 , 120)

g) If 15.25 ÷0.25 = 61 , then 1.525÷ 0.025 (61 , 610 , 6.1 , 0.61)

2) Find :

a) $9 \div \frac{3}{4}$ = ……..

b) 8.7 x 4.7 = ……..

c) 18.5 ÷1.25 = ……..

d) ……..÷ 4 = $\frac{3}{8}$

e) 4.5 ÷ …….. = 0.9

f) 0.25 ÷ $\frac{2}{3}$ = ……..

g) $\frac{3}{2} \div \frac{6}{5}$ = 3 x ……..

3) A rectangle with area 10.25 square meters and length of 4.1 m , find the width and the perimeter of this rectangle

……

……

……..

Unit 9

sheet (1)

- The comparing between two quantities or two numbers of the same kind of the same unit is called **ratio**

The ratio can be expressed as the following :

$a : b$ $\quad \frac{a}{b}$ $\quad a$ to b

1) Determine whether the following comparisons are ratios or not

Comparison	**Ratio**	**Not ratio**
The number of strawberries to the number of bananas in the basket		
The number of pupils who like playing football is greater than the number of pupils who like of swimming		
The number of students who support Al zamalek club is fewer than the number of students who support Al Aly club		
The number of girls to the number of boys in the same class		

2) A class has 24 girls and 18 boys complete in the simplest form :

a) The number of girls to the number of boys = …… : ……..

b) The number of boys to the number of girls = …… : ……..

c) The number of girls to the total number of pupils = …… : ……..

d) The number of boys to the total number of pupils = …… : ……..

3) <u>Look at the opposite shape then find the ratio required with different forms</u>

a) The ratio between the number of triangles to the number of circles:

……..

b) The ratio between the number of circles to the number of triangles

……..

c) The ratio between the number of circles to the total number of the two shapes

……..

4) <u>Find in its simplest form :</u>

a) 20 : 25 =……

b) 12: 18 =……

c) 49 : 63 = ……

d) $\frac{6}{8}$ = ……

e) 15 : 30 = ……

f) $\frac{32}{18}$ = ……..

sheet (2)

- The ratio between two quantities of different kinds is called **rate**

1) Complete :

a) Farida spends 120 L.E in 4 days , then the rate what she spends = ……..L.E/day

b) Ahmed drinks 14 cups juice of orange during a week , then he drinks …….. Cup/ day

c) A water tap is leaking 420 liters in one hour , then the rate of leaking = ……..L/minutes

d) An irrigation machine irrigates 15 Feddans in 5 hours then the rate of the work for this machine is …….. F/h

e) If a family drinks 56 glasses of milk weekly , then the rate of used milk daily = ……... glass / day

f) A car consumes 24 liters of benzene to cover a distance 240 Km , then the rate of consumption of this car is ……. L/km

g) If a runner covers 800 m in 4 minutes , then the speed of this runner = ……. m/n

2) Write a statement to represent the following :

a) Aly bought 3 meals and paid 400 L.E

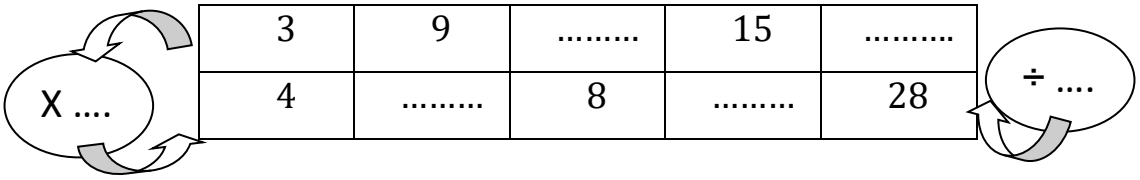
……..

b) The ratio between the number of words which Nada writes to the number of seconds is 10 : 1

……..

sheet (3)

1) ***Complete the following table:-***



3	9	……	15	…….
4	……	8	……	28

2) **Match the equivalent ratio :**

68 : 48 18 : 54 63 : 14 3200 : 4800

72:16 30 : 45 85 : 60 25 : 75

3) **Complete :**

a) The ratio between two numbers is 3 : 4 , the first number becomes 18 , then the second number = ……..

b) 4 : 7 = …….. : 35

c) $\frac{3}{15} = \frac{9}{\ldots\ldots} = \frac{\ldots\ldots\ldots}{30}$

d) If $\frac{2}{7} = \frac{x+1}{35}$ then X = ……

e) If $\frac{3x+10}{4} = 25$, then x = ……..

4) Choose the right answer :

a) If $\frac{2}{7} = \frac{x}{21}$, then x = 7 (True , False)

b) If the ratio 7 : 13 is the same the ratio x : 52 , then x = … (14 , 21 , 28 , 35)

c) If $\frac{a}{b} = \frac{2}{3}$, then $\frac{a}{2}$ = ……. ($\frac{3}{b}$, $\frac{a}{3}$, $\frac{b}{3}$, $\frac{b}{a}$)

d) If $\frac{14}{x} = 0.7$, then x = ……. (0.2 , 0.7 , 20 , 70)

sheet (4)

1) Fatma used 8 cups of tomato and 3 cups of onion to make ketchup , draw a tape diagram to find the number of cups of tomato if she used 12 cups of onion

……

……

……..

2) If 1 K of meat is enough to feed 6 people .

a) Draw a tape diagram and write numbers on it to represent the ratio of the number of K of meat to the number of people

……

……

b) how many people were fed 9 K of meats

……..

3) Yasmin drew 45 stars in 2 minutes , how many stars did Yasmin draw in 4 , 10 , 12 minutes

Number of stars				
Number of minutes				

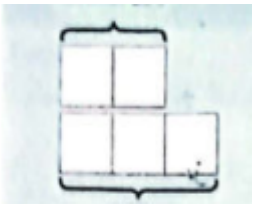
4) Complete the following equivalent ratios

The number of red flowers	**The number of yellow flowers**
4	2
2	……..
20	……..
……..	8

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

a) The ratio between the number of cats to the number of dogs = ……..

Number of cats



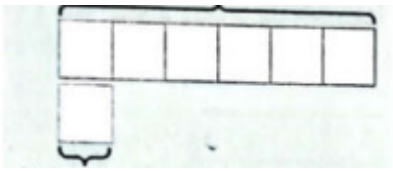
Number of dogs

(2:3 or 3 : 2 or 2:5 or 3 : 5)

b) The distance covered by a rabbit in 12 seconds = …….. meters

(2 , 18 , 72 , 12)

Distance in meter

Time in seconds 

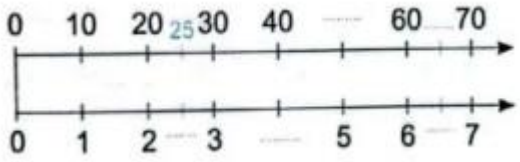
c) In a school trip the number of teacher is 2 , then the number of children is …….. according to the opposite table (9 , 42 , 15 , 53)

Number of teacher	2	6
Number of children	?	45

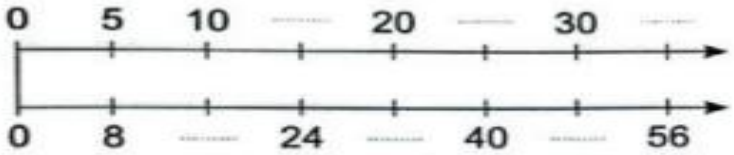
sheet (5)

1) <u>On the double lines , complete the missing numbers :</u>

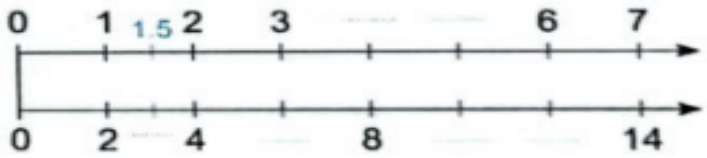
a) 10 : 1



b) 5 : 8



c) 1 : 2



Revision on unit 9

1) Choose the right answer :

a) $\frac{5}{7}$ is equivalent to …….. ($\frac{7}{5}$, $\frac{15}{4}$, $\frac{25}{35}$, $\frac{35}{25}$)

b) 125 : 75= ……. (5 : 3 or 5 : 4 or 2 : 3 or 3 : 5)

c) A carpenter needs 30m² to make 10 tables , then the rate of used wood ……..

…….. m²/ table (300 , 10 , 3 , 4)

d) If a : 6 = 2 : 4 , then 4 a = …….. (12 , 24 , 8 , 10)

e) $\frac{2}{3}$: $3\frac{1}{3}$ = …….. (1 : 5 , 2 : 3 , 2 : 5 , otherwise)

f) If $\frac{2}{7} = \frac{x}{21}$, then x = 7 (True , False)

g) If the ratio 7 : 13 is the same the ratio x : 52 , then x = … (14 , 21 , 28 , 35)

h) If $\frac{a}{b} = \frac{2}{3}$, then $\frac{a}{2}$ = ……. ($\frac{3}{b}$, $\frac{a}{3}$, $\frac{b}{3}$, $\frac{b}{a}$)

2) Hend bought 8 bottles of juice for 34 L.E How much money did she pay to buy 15 bottles?

……

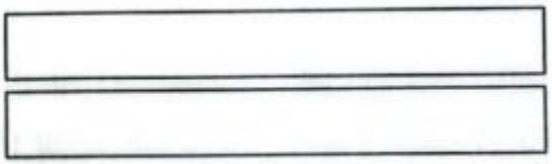
3) Samy wants to plant trees , he takes 10 minutes to plant a tree , complete tis table

3	6	12	……
11	……	……	55

Unit (10) sheet (1)

1) Find the rate using the tape diagram

a) Azza covered 480 m^2 in 8 minutes



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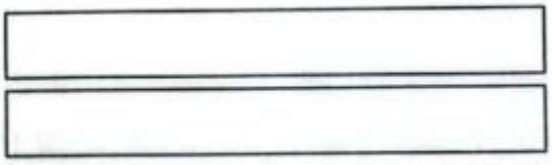
b) Wessam paid 450 L.E for 9 tickets



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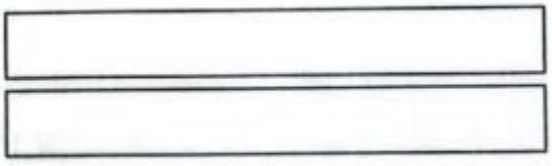
c) Peter reads 240 pages in 15 minutes



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2) <u>Find the rate using double lines</u>

a) A laser printer prints 60 pages in 5 minutes

b) We have 33 players in 3 teams

c) Mona listened 4 songs in 8 minutes

sheet (2)

1) Write the following ratios as unit rates

a) Fourteen apples in two barrels

……

b) Twenty students on four teams

……

c) Thirty two crayons in two boxes

……

d) Eighteen bottles in three carries

……

2) Complete :

a) 7 Km = …… X $\frac{\text{……}}{\text{……}}$ = …….. m

b) 3,000 cm = …… X $\frac{\text{……}}{\text{……}}$ = …….. m

c) 10 Kg = …… X $\frac{\text{……}}{\text{……}}$ = …….. g

d) 120 minutes = …… X $\frac{\text{……}}{\text{……}}$ = …….. hours

e) 480 piasters = …… X $\frac{\text{……}}{\text{……}}$ = …….. pounds

3) Using the appropriate conversation factor , convert the following unit rates

a) 12Km/hr. = ……Km/minute

b) 3650 piasters/gram = ……Pounds/Kg

c) 45 m/minute = ……Km/hr

d) 18 Kg/day = …… gram/ hr

4) Choose the right answer :

a 1 day: 24 hours is considered a/an ……

(unit ratio or equivalent ratio or conversion factor or otherwise)

b 280 cm / sec = …… m/min (140 or 168 or 280 or 28)

c 450 PT = …… LE (4500 or 450 or 45 or 4.5)

d 180 minutes = …… hours (2 or 3 or 4 or 5)

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5) Identify which of the following is unit rate or conversion factor

a 1 day : 24 hours (……) b 18 km : 1 hour (……)

c $\frac{1\text{m}}{100\text{ cm}}$ (……) d $\frac{1\text{ LE}}{100\text{ PT}}$ (……)

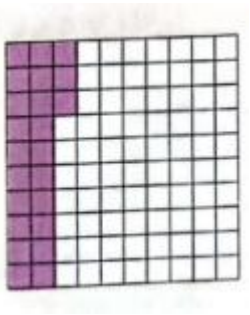
e 21 pens : 1 pack (……) f $\frac{1\text{ cm}}{10\text{ mm}}$ (……)

g 1 km : 1000 m (……) h 5 L : 1 bottles (……)

i $\frac{7\text{ days}}{1\text{ week}}$ (……) j $\frac{1\text{ kg}}{1{,}000\text{ gram}}$ (……)

sheet (3)

- The percentage is a ratio its second term = **100** and it is denoted by **%**

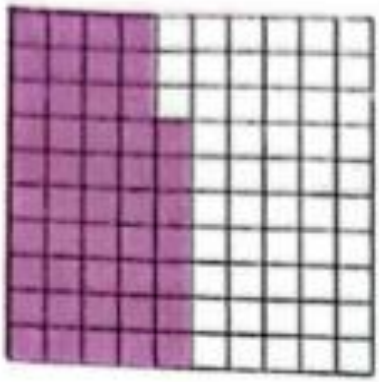


The shaded part = $\frac{23}{100}$ as fraction

= 0.23 as decimal

= 23% as percent

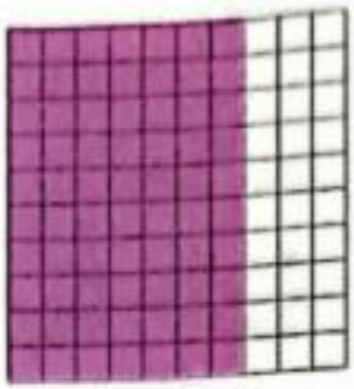
1) Represent the shaded part in fraction , decimal , percentage



Fraction= ……

Decimal = ……

Percentage = ……..

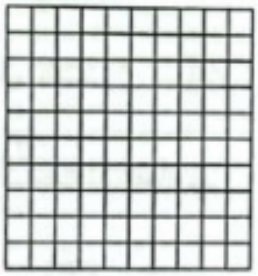


Fraction=……..

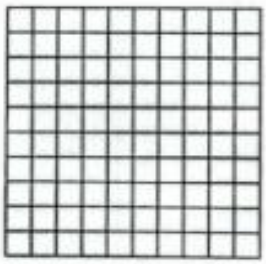
Decimal = ……..…..

Percentage = ……..

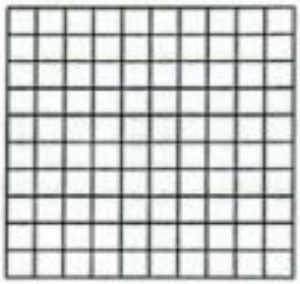
2) <u>Shade the following shapes to get the right percentage</u>



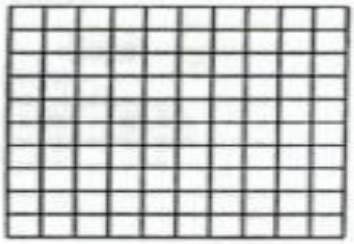
3 % = ...



87 % = ...



60 % = ...



45 % = ...

3) <u>Convert the following to percentage :</u>

a) $\frac{14}{100}$ = ……..

b) $\frac{5}{100}$ = ……..

c) $\frac{3}{5}$ = ……..

d) $\frac{1}{4}$ = ……..

e) 0.33= ……..

f) 0.02 = ……..

g) 0.7 = ……

h) 0.80 = ……

i) 0.9 = ……..

4) <u>Convert the following to decimal :</u>

a) 50 % = ……..

b) 3% = ……

c) 24% = ……..

d) 16% = ……..

5) <u>Convert the following to fraction in simplest form :</u>

a) 15% = ……

b) 42% = ……

c) 70% = ……

d) 99% = ……..

6) <u>Choose the percentage that best suits each of the following situation : (35% , 50% , 85 % , 100%)</u>

ⓐ All the students in the mathematics class were present today.

(…….)

ⓑ Most of the students in the mathematics class were present today.

(…….)

ⓒ Less than half of the students in mathematics class were present today.

(…….)

ⓓ If the total number of students in the mathematics class is 20, this means that exactly 10 of them were present today. (…….)

Sheet (4)

1) Match

[a] $\frac{3}{4}$	[b] $\frac{2}{5}$	[c] $2\frac{3}{8}$	[d] 0.22	[e] 1

[1] 40 %	[2] 100 %	[3] 237.5 %	[4] 75 %	[5] 22 %

2) An employee saves 160 L.E monthly if his monthly salary is L.E 3200. Find the percentage of his saving.

.....

.....

3) In a class, there are 48 pupils, if 6 of them are absent. Find the percentage of attendance.

.....

.....

4) Choose the right answer :

a) $\frac{2}{8}$ = ... % (35 or 45 or 12.5 or 25)

b) $1\frac{1}{4}$ = ... % (25 or 12.5 or 125 or 1250)

c) 37% = ... ($\frac{3.7}{100}$ or 37 or 0.37 or 3700)

d) 225% = ... ($1\frac{25}{100}$ or $2\frac{25}{200}$ or $2\frac{1}{4}$ or 0.225)

e) $\frac{3}{6}$ = ... % (30 or 25 or 50 or 60)

Sheet (5)

By using given values, complete the table:

ⓐ In a class of 40 students, only 20% of the students are participating in an art competition. How many students are not taking part in the competition?

.....

.....

Whole	Part	Percent
.....	.....	.....

ⓑ If a baseball team has lost 45 matches out of the 120 matches played in total, find out their winning percentage.

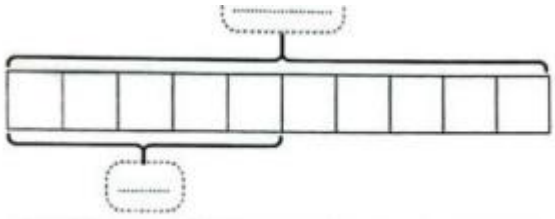
.....

.....

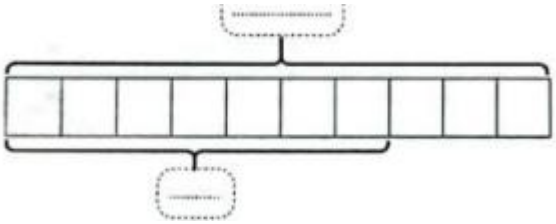
Whole	Part	Percent
.....	.....	.....

2) <u>By using tape diagram find :</u>

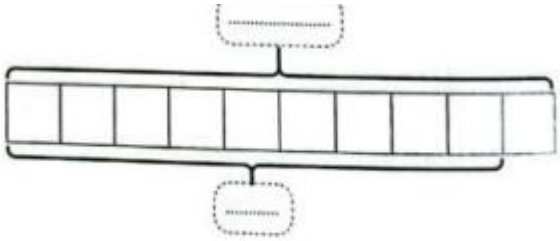
a) 50% 80



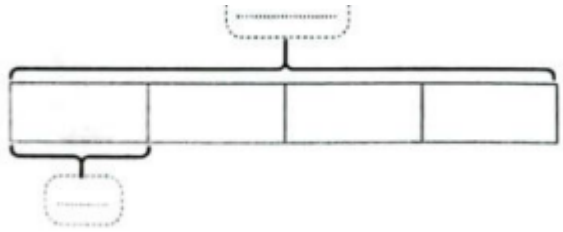
b) 70% of 120



c) 90% 0f 900

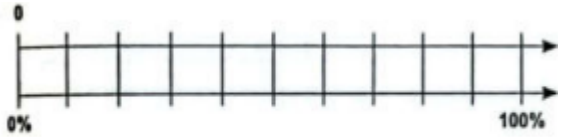


d) 25% of 200

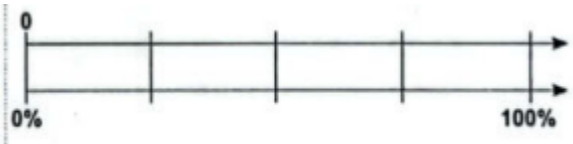


3) **<u>By using double lines find :</u>**

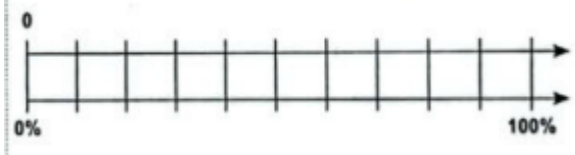
a) 70% of 130



b) 75% of 300



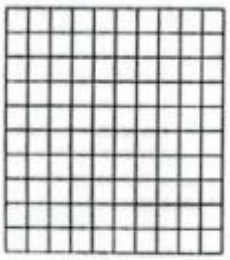
c) 20% 0f 150



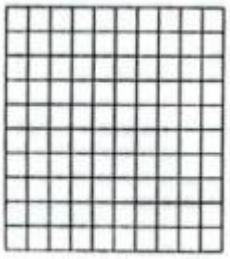
Sheet (6)

1) Using the grid find :

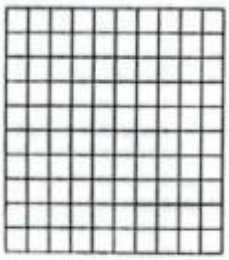
a) 18% of ……. = 90



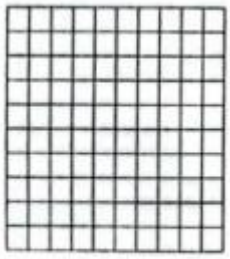
b) 30% of ……= 180



c) 20% 0f ……..=100



d) 10% of ……= 70



2) Complete

a A school has 600 students. If the number of girls is 240, then the percentage of the girls is …….

b 60% of 540 equals ……

c 27% of …… = 54

Sheet (7)

1) Complete the following table

Number	5%	10%	30%	70%
16				
40				
3225				
14000				

2) The number of the succeeded pupils in a school is 360 and it represent 90% of the total number of pupils .Find the total number of pupils

……

……

.

3) Aly bought a book for 100L.E before a discount , if he had a discount 23 L.E , find the percentage of the discount

……

……

4) Complete :

a The value of 10% of 3200 is ..... .

b The value 20% of 5.6 is ..... .

c The price of TV is 4,800 L.E, there is an extra tax of 10%, then th price of TV with tax is ..... .

Revision on unit 10

1) **Choose the right answer :**

[1] 20% ..... $\frac{2}{5}$ (> or < or = or ≤)

[2] The value of 10 % of 4,200 LE is ..... (420 or 42 or 12 or 210)

[3] 90 % of ..... = 360 (0.4 or 4 or 40 or 400)

[4] 225% = ... (1 $\frac{25}{100}$ or 2 $\frac{25}{200}$ or 2 $\frac{1}{4}$ or 0.225)

[5] Noah spends 48 pounds in 6 days, then he will spend ..... L.E in 10 days.

(240 or 60 or 80 or 40)

2) **Complete :**

[1] 54 cm per second = ... meter/minute

[2] 60 % of ..... LE = 360 LE

[3] 1 $\frac{4}{8}$ = ... %.

[4] 540 minutes = ... hours

[5] A printer prints 27 papers in 3 minutes, then it prints ..... papers in a minute.

3) The price of a fridge is 34,500 L.E , and it was a discount 30%.Find the value of 10% ,the amount of the discount and the price after the discount

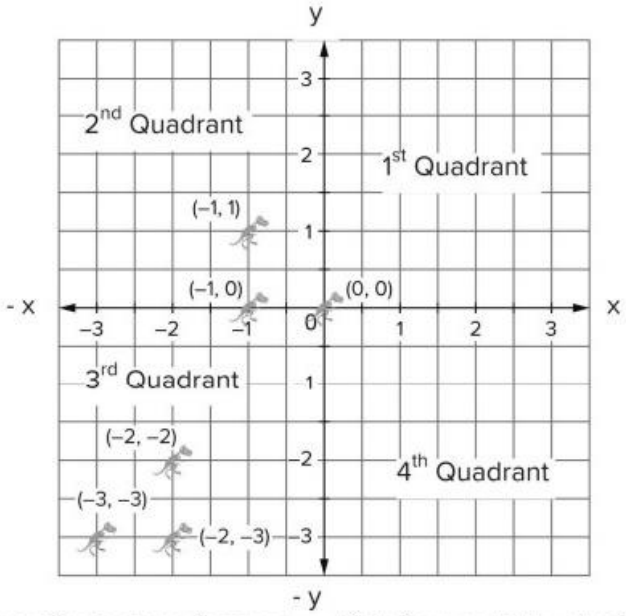
.....

.....

.....

Unit (11)

A coordinate plane is a two-dimensional plane formed by the intersection of a vertical line called the y-axis and a horizontal line called the x-axis. These are perpendicular lines that intersect each other at zero, and this point is called the origin.



- (Positive , Positive) → 1st Quadrant
- (Negative , Positive) → 2nd Quadrant
- (Negative , Negative) → 3rd Quadrant
- (Positive , Negative) → 4th Quadrant

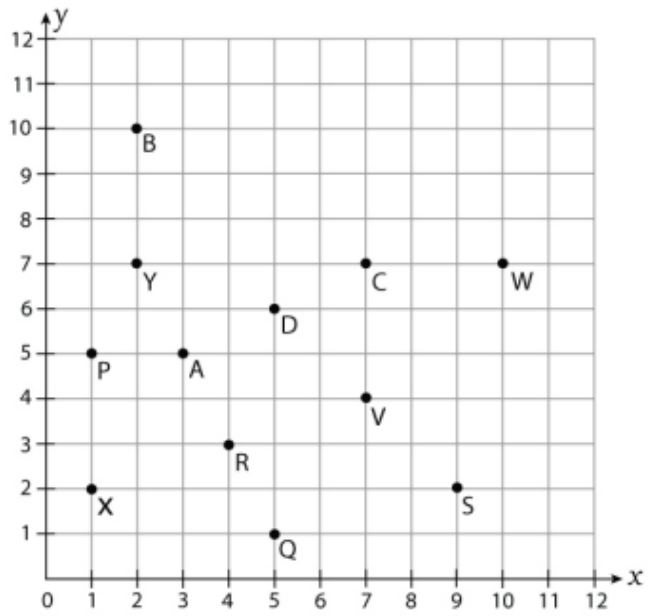
Match Them Up A coordinate plane is separated into four parts by a horizontal line called the *x*-axis, and a vertical line called the *y*-axis. Each part is called a quadrant

Notes:

- For reflection across x-axis change the sign of the y-coordinate
- For reflection across y-axis change the sign of the x-coordinate

sheet (1)

A) Write the ordered pair for the points marked in the grid.



1) B = _____ 7) X = _____

2) R = _____ 8) A = _____

3) V = _____ 9) P = _____

4) D = _____ 10) Y = _____

5) S = _____ 11) Q = _____

6) W = _____ 12) S = _____

B) Write the letter that corresponds to each ordered pair.

a) (5, 1) ___ g) (10, 9) ___

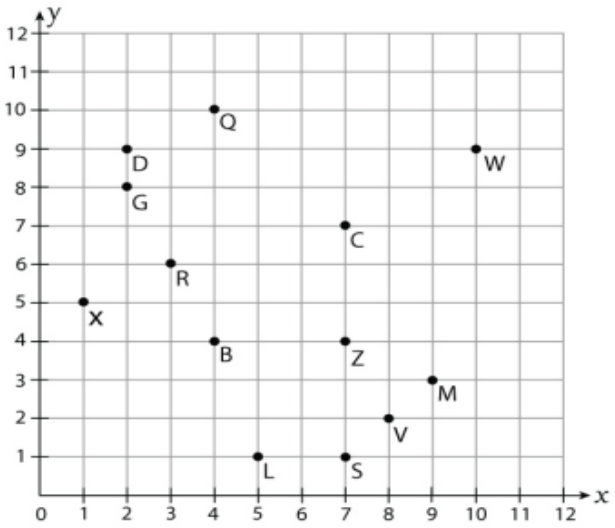
b) (3, 6) ___ h) (4, 4) ___

c) (4, 10) ___ i) (2, 8) ___

d) (7, 1) ___ j) (7, 4) ___

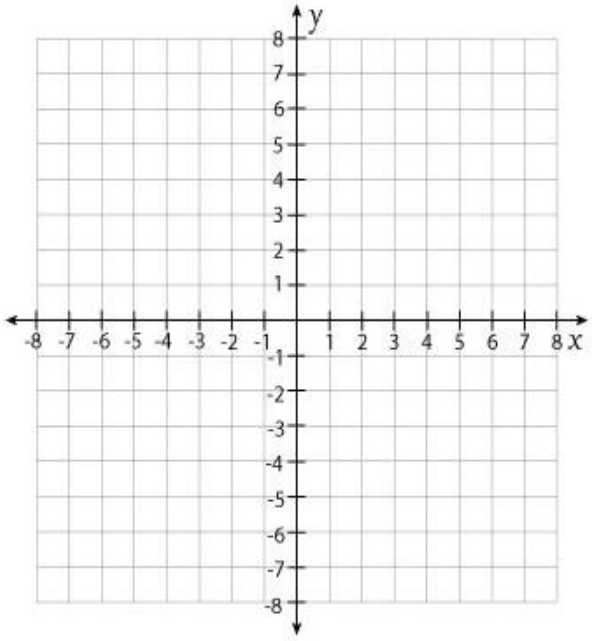
e) (9, 3) ___ k) (1, 5) ___

f) (8, 2) ___ l) (2, 9) ___



sheet (2)

A) Graph the given points on the coordinate plane.



a) B(-4, 2) b) E(8, 5)

c) G(-5, 5) d) L(8, -4)

e) Q(3, -1) f) X(-2, 5)

g) S(4, -6) h) D(2, -2)

i) A(-7, -5) j) M(6, 0)

B) Determine the coordinate of each letter in the grid.

M = _____ D = _____

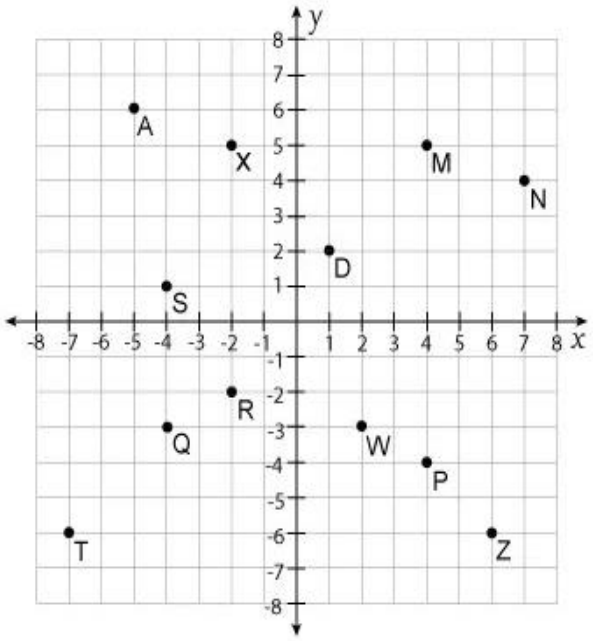
Q = _____ A = _____

W = _____ N = _____

S = _____ P = _____

T = _____ R = _____

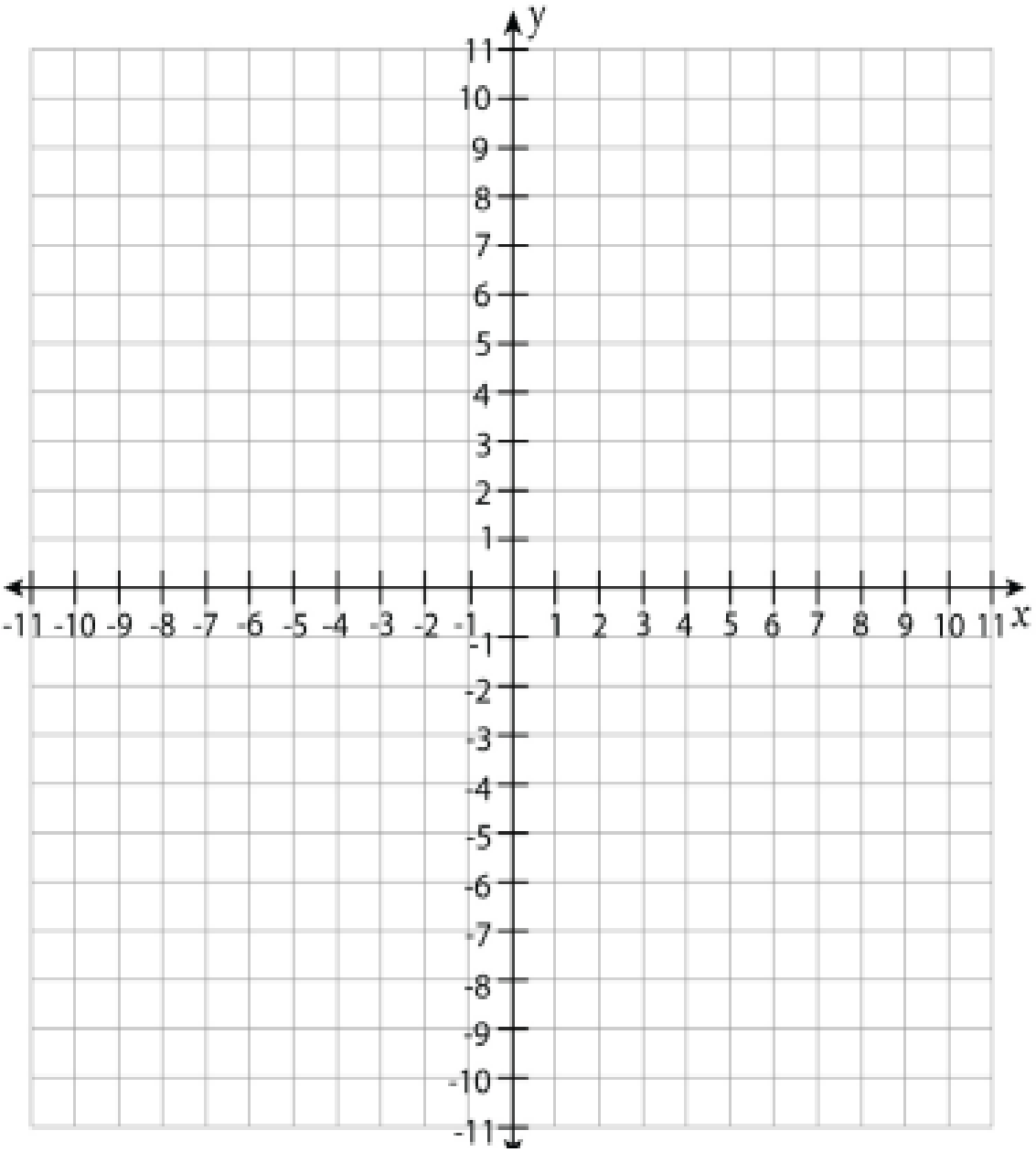
Z = _____ X = _____



Sheet (3)

Plot the coordinate points given below.

a) A(-7, -4)	b) B(-10, -9)	c) P(-3, 7)	d) Z(9, -5)
e) X (6, 8)	f) R(-9, -6)	g) Q(-4, -4)	h) Y(5, -8)
i) W(4, 10)	j) K(7, 4)	k) D(3, 2)	l) J(0, -3)



Sheet (4)

1) Complete:

a) The order pair representing the origin is……

b) Point (-3,7) is located in the ……..quadrant

c) Point (5,0) is located on the …….. axis

d) The distance between (3,5) and (-2,5)is ……units

e) The two points (5,……)and (-2,6)lie on the same line

f) The distance between (2,9)and (2,.....)is 5units.

g) Z(4,2),F(-4,2),the ZF=……..units

---

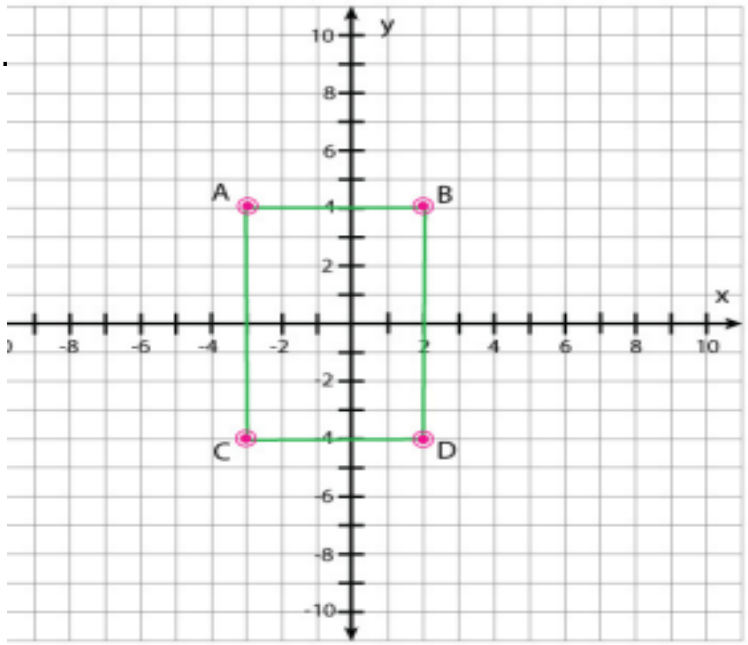
2) In the opposite plane: ABCD is a rectangle. **Find:**

a) Distance between A and B is ……

b) The length of BD is……..

c) Perimeter of rectangle ABCD is ……

d) Area of rectangle ABCD is ……



Sheet (5)

1) locate the following points on the coordinate plane, then find the image of each point by reflection on x-axis and y-axis:

Points	Image by reflection on y-axis	Image by reflection on x-axis
A(5,1)		
B(-4 , 2)		
C(0,-2)		
D(-2.5 , -0.5)		
E(-7 , 0)		

2) Choose the correct answer:

a) All the following lie in the 4^{th} quadrant, except……

((2, -3) , (-4, -3) , (5, -1) , (1, -1))

b) If the point (x, -7) lies in the 3^{rd} quadrant, then the value of x is ……..

(2 , 4 , -1 , 1)

c) The point ……. lies on x-axis

((2, -3) , (0.-3) , (4, -1) , (1,0))

d) The point …….. lies on the y-axis

((2, -7) , (0, -7) , (1, -1) , (5,0))

e) Which of the following lies in the 2^{nd} quadrant?

((2.-7) , (0, -1) , (-1,9) , (7,0))

f) The image of point (0,5) by reflection on the y-axis is…….

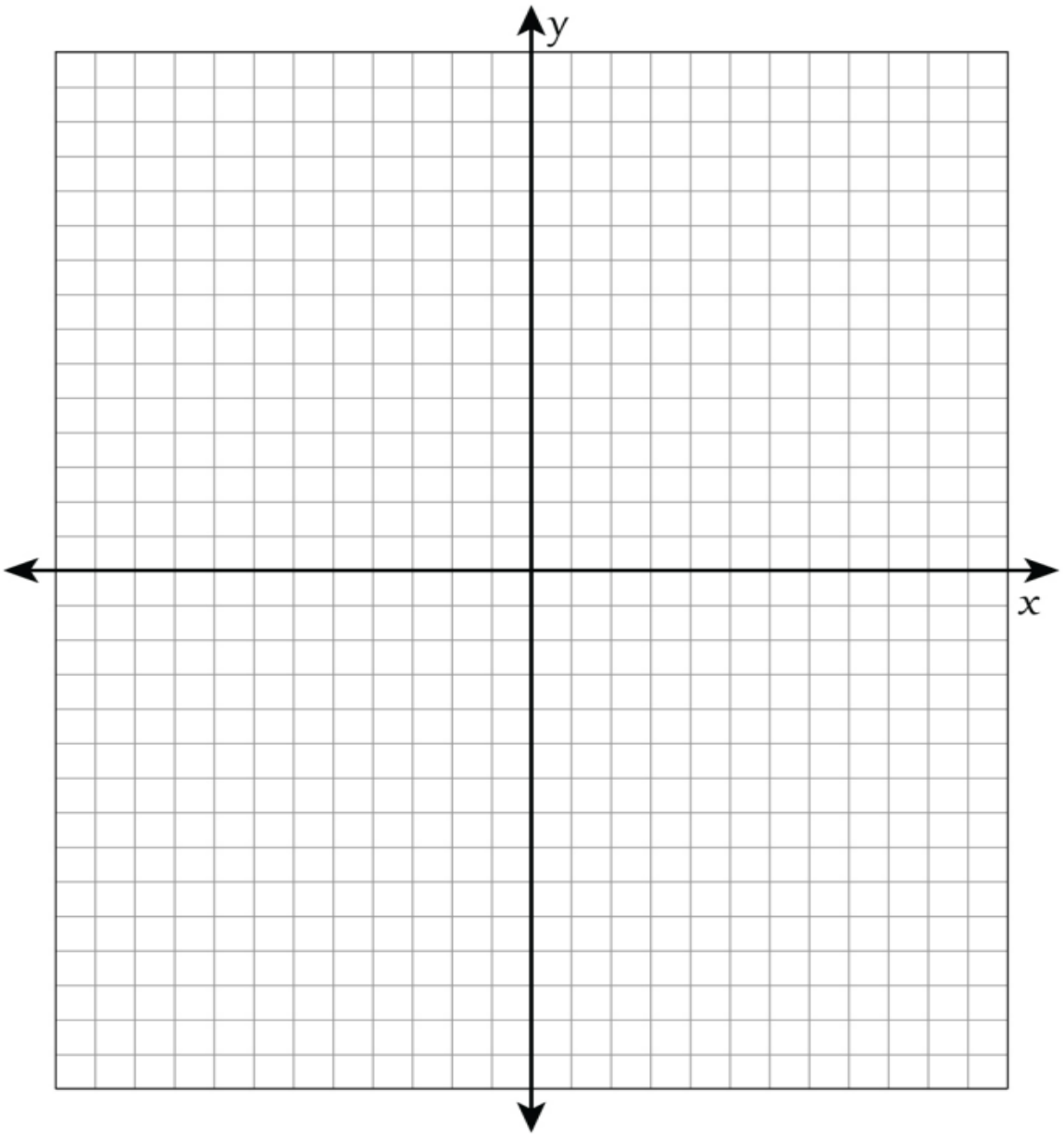
((5,0) , (0, -5) , (5, -5) , itself)

g) The image of point (-6,6) reflected on y-axis in the point……

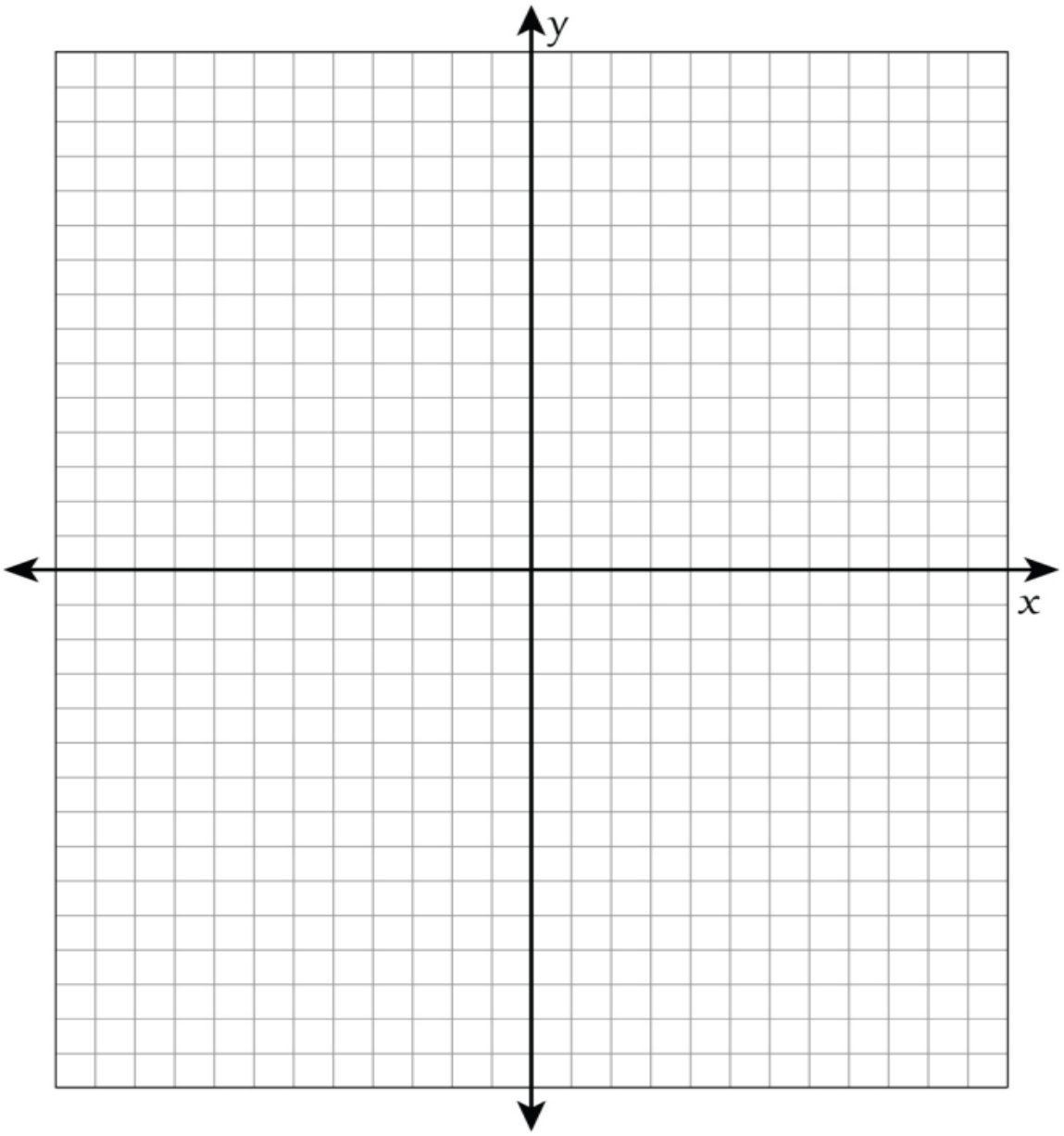
((-6,-6) , (6,-6) , (6,6) ,itself)

Sheet (6)

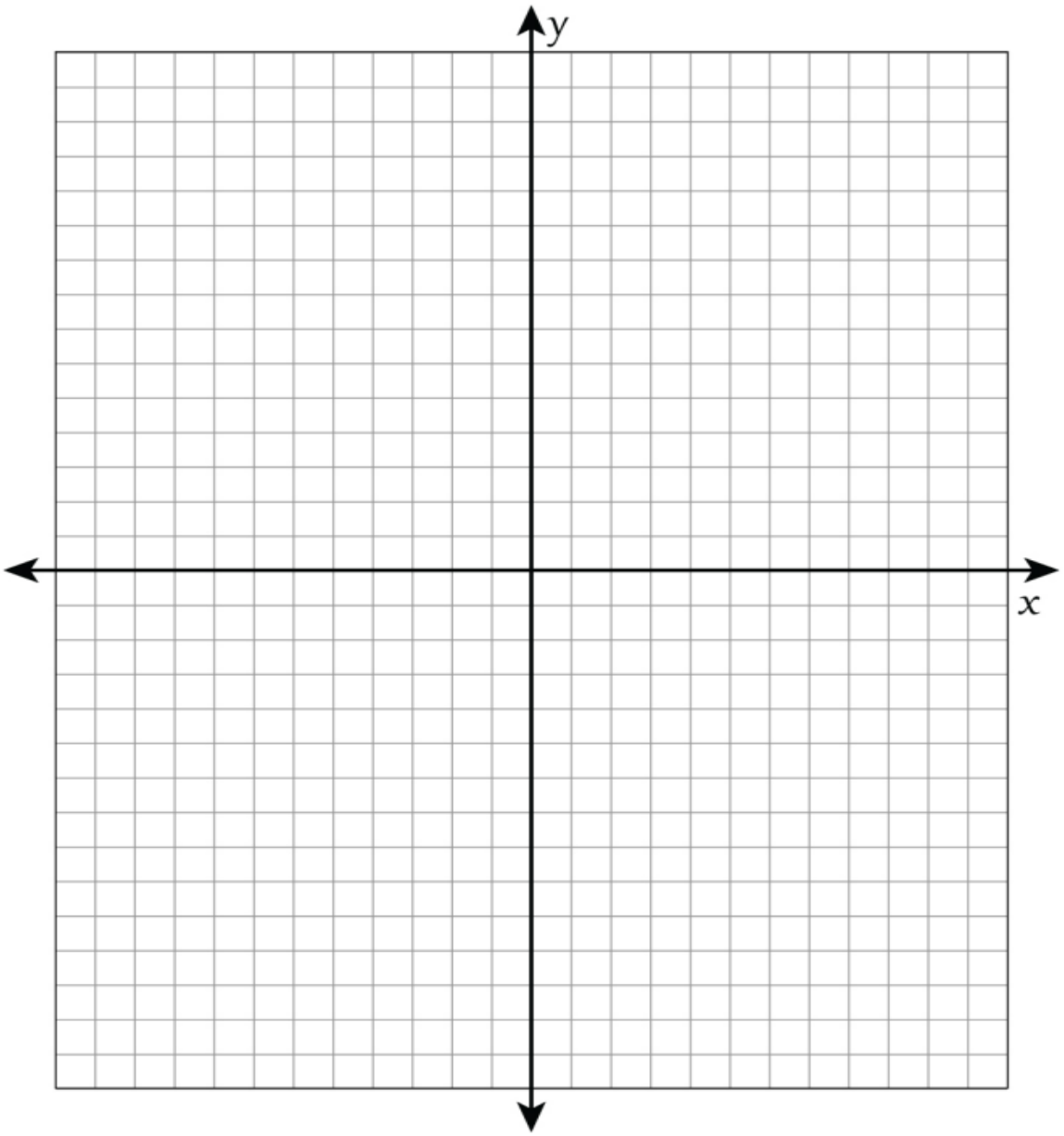
1 Draw a polygon having three coordinates as (-5,3) , (3,3) and (-5,-3). Name the polygon.



2 Complete the polygon with four vertices (-3,3), (3,3), (3,-2), and (-3,-2).
Find the area and perimeter of the polygon.



3 Draw and find the area of the polygon with coordinate points A (3,5) , B (6,8) , C (9,5) and D (6,0)



Revision on unit 11

1) Match :

{ (2 , 5) , (2 , 2) , (5 , 2) , (5 , 5) }	∘	∘ A rectangle 1
{ (-3 , 2) , (-3 , 5) , (1 , 2) }	∘	∘ A square 2
{ (1 , 1) , (1 , -1) , (5 , -1) , (5 , 1) }	∘	∘ A triangle 3

2) Complete :

ⓐ The x-coordinate of any point that lies on the y-axis is .....

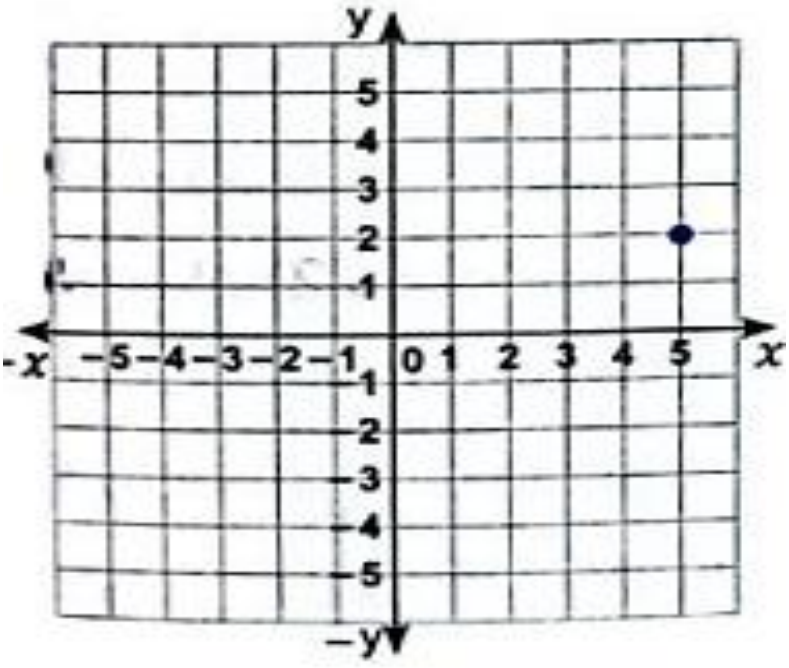
ⓑ The image of the point (2 , 0) by reflection on the x-axis is .....

ⓒ The image of the point (4 , −3) by reflection on ..... is (−4 , −3

ⓓ Point C(5 , − 3) lies in the ..... quadrant.

3) The point :(5,2) is the start point of the side of a square with length 4 units

Continue the drawing of this square then determine the pair of each point



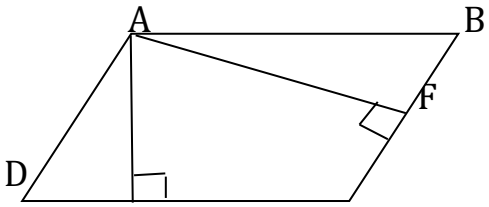
Unit 12 (sheet 1)

Area of parallelogram

Area = base x corresponding height

Base = area ÷ height

Height = area ÷ base



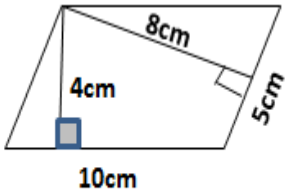
Remarks

1) The **smaller base** corresponding to the **greater height** .

2) The **greater base** corresponding to the **smaller height**

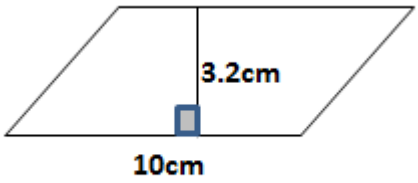
[1] find the area of each parallelogram

Fig(1)



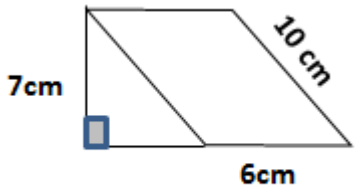
Area = ...

Fig(2)



Area = ...

Fig(3)



Area = ...

[2] Complete:-

a) If the length of base in a parallelogram is 9 cm. & its corresponding height is 4 cm. then its area is .....cm^2.

b) If the area of a parallelogram is 21 cm^2. & the length of base is 7 cm. then its corresponding height is ..... cm.

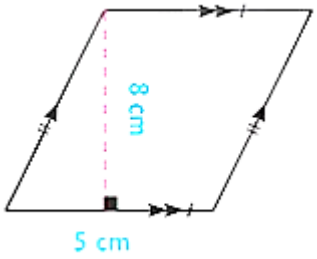
c) If the area of a parallelogram is 35 cm^2. & its height is 7 cm. then the length of its corresponding base is ..... cm.

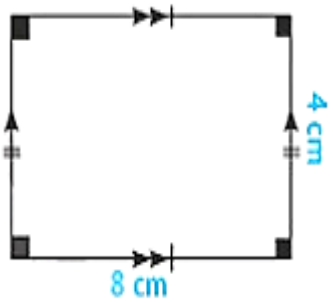
d) In a parallelogram if its dimensions are 6 cm. & 4 cm. and the length of the smaller height is 3 cm, then its area is ..... cm^2.

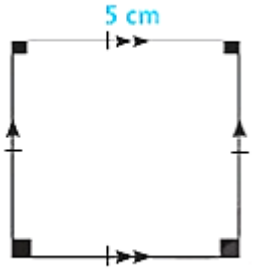
e) in a parallelogram if the length of the greater height is 5.4 cm. & its dimensions are 7 cm. and 5 cm. then its area is ..... cm^2

(sheet 2)

1) Find the area of the following :







2) Choose the right answer :

a) A parallelogram which has a right angle is called a .....

(square or rectangle or rhombus or trapezium)

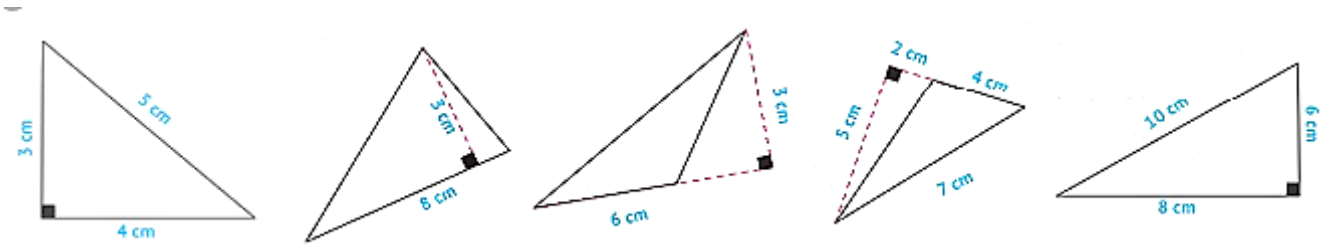
b) If the area of a parallelogram is 36 cm^2 and its base is 4 cm, then its corresponding height is ..... cm. (54 or 6 or 9 or 18)

c) If the dimensions of a parallelogram is AB = 9 cm and BC = 4 cm, then the length of the corresponding height of AB ☐ the length of the corresponding height of BC. (> or < or = or otherwise)

d) If the base length of a parallelogram is 12 cm and its corresponding height is 4 cm, then its area is ..... cm^2. (3 or 8 or 36 or 48)

(sheet 3)

1) Find the area of each triangle



2] Complete:-

a) The area of a triangle = $\frac{1}{2}$ x …… x ……

b) If the length of the base = 6 cm. & the corresponding height = 4cm. then the area of this triangle = …… cm^2.

c) If the area of a triangle is 20 cm^2. & its base length is 8 cm. , then the corresponding height = …….. cm.

d) If the area of a triangle is 30 cm^2. & its height = 10 cm. then its corresponding base length =……. cm.

e) If the area of a right triangle is 15 cm^2. And the length of one side of the right triangle is 6 cm. then the length of the other side is …… cm.

3)Choose the right answer :

ⓐ The number of heights of any triangle is ……. (0 or 1 or 2 or 3)

ⓑ If a triangle has a base length of 6 cm and its corresponding height is 5 cm, then its area is …… cm^2. (30 or 15 or 45 or 60)

ⓒ The number of heights of a right triangle is ……. (0 or 1 or 2 or 3)

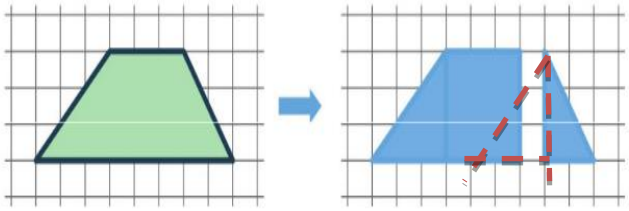
ⓓ If the area of a triangle is 30 cm^2 and its base is 6 cm, then its height is …… cm. (5 or 2.5 or 10 or 90)

ⓔ The area of the triangle = ……. ($\frac{1}{2}$ b X h or b X h or W X L or $\frac{1}{4}$ b x h)

ⓕ If the perimeter of an equilateral triangle is 18 cm and its area is 15 cm^2, then its height is …… cm. (5 or 15 or 30 or 6)

(sheet 4)

[1] find the area of trapezium:



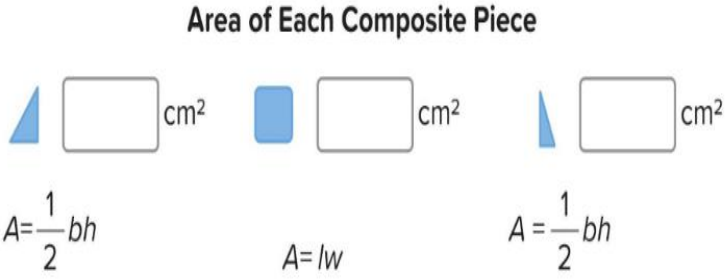
Area of triangle (1) = ……

Area of triangle (2)= ……..

Area of rectangle = ……..

Area of trapezium

= …… +……+…… = …… cm^2

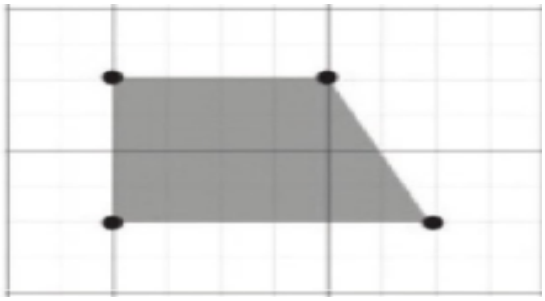


[2] find the area of trapezium:

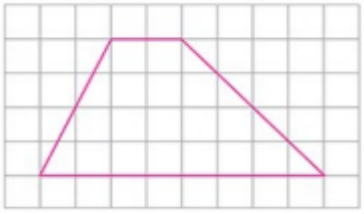
1) Area of triangle =
……

2) Area of square = ……..

3) Area of trapezium= …….. + …….. = ……..



4) Find the area of the trapezium

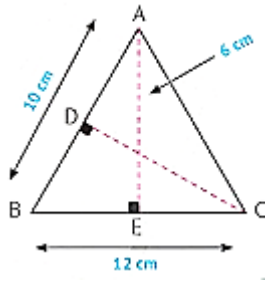


First way = ……

Second way = ……..

Revision on unit 12

1) According to the opposite figure , find the length of CD



2) Complete :

1. In an obtuse triangle, if its base length is 10 cm and its corresponding height is 7 cm, then its area is ..... cm^2.
2. In the parallelogram, the longer height corresponds to ..... sides.
3. The trapezium has exactly ..... pair(s) of parallel sides.
4. The area of the rhombus equals .....

3) Find :

1. In an acute triangle, if its base length is 13 cm and its corresponding height is 6 cm, then its area is ..... cm^2.
2. A parallelogram in which all sides are equal in length is called a .....
3. If the area of a triangle is 35 cm^2 and its base is 7 cm, then its height is ..... cm.
4. The area of the rectangle = ... X .....

Unit 13(sheet 1)

1) Find the surface area of cuboid if its dimensions are 10 cm, 5 cm and 2 cm.

……

2) Find the surface area of cuboid if its dimensions are 6 cm, 4 cm and 5 cm.

……

3) Complete :

a) The surface area of a cube = …… ×……

b) The Side length of a cube is 5 cm then its surface area = ……

c) The area of one face of a cube is 12 cm^2 then its T.S.A. = ……

d) The sum of edges lengths of a cube is 36 cm then its S.A. = ……

e) The area of a face of a cube = $\frac{\text{.....}}{\text{.....}}$ its total surface area

f) The perimeter of one face of a cube is 8 cm then its surface area = ……cm^2

g) The surface area of cube is 54 cm^2 then the area of one face = …… cm^2

h) The ratio of the area of one face of a cube to its surface area is …… : ……

4) Ahmad made a cubic box out of sheet metal for an art project. The side length of the box is 8 cm. what is the surface area of the sheet metal he used?

……

5)Choose the right answer :

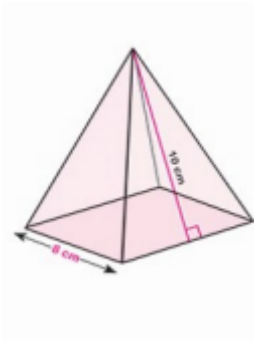
a) The ratio of the area of one face of a cube to its surface area is ……
(1 : 8 or 1 : 4 or 1 : 6 or 2 : 3)

b) The surface area of a cuboid with dimensions 2 cm , 5 cm, and 10 cm is …… cm^2.
(2×17 or $2 \times 5 \times 10$ or $2 \times (10 + 50 + 20)$ or $4 + 10 + 20$)

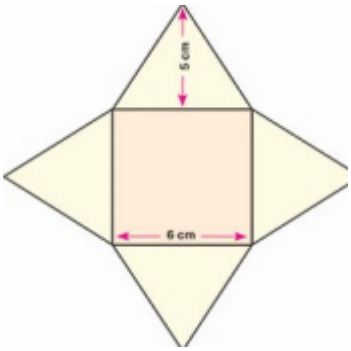
c) The surface area of a cube is 54 cm^2, then the area of one face of this cube is …… cm^2.
(3 or 6 or 18 or 9)

Sheet (2)

1) Find the surface area of :



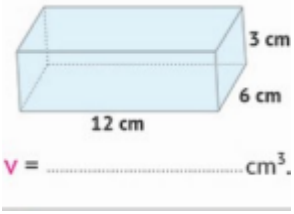
Face of Square Pyramid	Area
Base	.....
Face 1	.....
Face 2	.....
Face 3	.....
Face 4	.....
Surface Area	.....



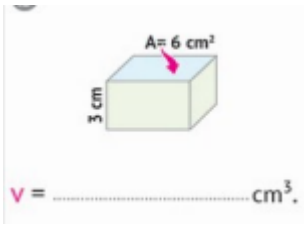
Face of Square Pyramid	Area
Base	.....
Face 1	.....
Face 2	.....
Face 3	.....
Face 4	.....
Surface Area	.....

Sheet (3)

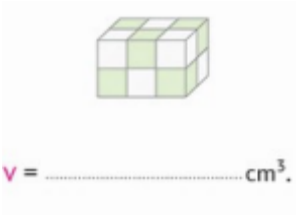
1) Find the volume of :



V = ... cm^3.



V = ... cm^3.



V = ... cm^3.

2) A cuboid with dimnensions 2.8 m , 4.5m , 3.2 m , find its volume by two different methods

.....

.....

3) If the volume of a cuboid is 810 m^3 , and the height is 10 m ,find its base area

.....

4) If the base area of a cunoid is 36 cm^2 and the height is 6 cm ,find its volume

.....

5) A gift in form of cuboid with dimensions 10 , 6 , 4 cm , it is wanted to put it in a box with same lenght and width of the gift but height twice the height of the gift

Find : the ratio between the volume of gift to te the volume of box

.....

.....

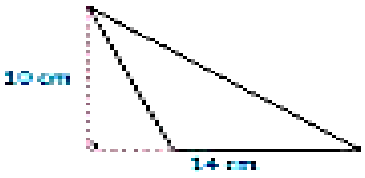
.....

Model exam

1) Choose the right answer :

1. $1.75 \div 0.5 =$ ..... (35 or 3.5 or 0.35 or 0.035)
2. The reciprocal of 7 is ..... (7 or $\frac{1}{7}$ or -7 or $-\frac{1}{7}$)
3. All the following points lie on the y-axis, except ..... .

   ((0 , 1) or (1 , 4) or (0 , − 7) or (0 , 5))
4. If the side length of the rhombus is 8 cm and its height is 3 cm, then its area is .....cm^2. (48 or 24 or 12 or 11)
5. The area of the opposite triangle is ..... cm^2.

   (70 or 24 or 140 or 56)
6. All the following are equivalent to 80%, except ..... .

   (0.8 or 0.80 or $\frac{8}{10}$ or $\frac{8}{100}$)
7. 1.2 kg X $\frac{\text{.....}}{\text{.....}}$ = 1,200 gm ($\frac{1{,}000 \text{ gm}}{1 \text{ kg}}$ or $\frac{1 \text{ kg}}{1{,}000 \text{ kg}}$ or $\frac{1 \text{ km}}{100 \text{ gm}}$ or $\frac{100 \text{ gm}}{1 \text{ kg}}$)

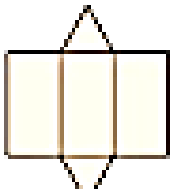
2) Complete :

1. $9 \div \frac{1}{3}$ = ...
2. 97% = ... (As a decimal)
3. The surface area of the cube with edge length 5 = ...
4. If the dimensions of a cuboid are 8 cm, 5 cm, and 4 cm, then its volume is ..... cm^3.
5. If a fruit seller has 45 kg of apples and 50 kg of oranges, then the ratio between the weights of apples to oranges in the simplest form is ..... : ..... .

6 Nada bought tools for 400 LE; by adding 10% taxes, the total she paid is ..... pounds.

7 If the two sides of the right angle in a right-angled triangle are 3 cm, and 4 cm, then its area is ..... cm^2.

8 After folding the corresponding shape, a three-dimensional shape is formed, which is a ..... .



3) Choose the right answer :

1 $\frac{48}{36}$ = ... (In the simplest form) ($\frac{3}{4}$ or $\frac{4}{3}$ or $\frac{6}{8}$ or $\frac{18}{24}$)

2 The area of a rhombus that has a side length of 8 cm and a height of 5 cm is ..... cm^2.

(26 or 40 or 20 or 13)

3 In (-4 , 3), the x-coordinate is ..... . (7 or − 4 or 4 or 3)

4 If 10% of 300 is 30, then 60% of 300 is ..... . (120 or 160 or 180 or 200)

5 The image of the point (2 , 2) by reflection across the y-axis is ..... .

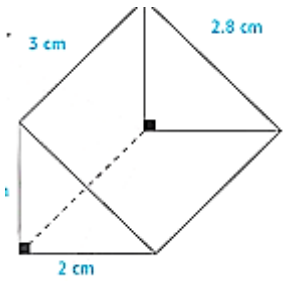
((2 , −2) or (−2 , −2) or (2 , 2) or (−2 , 2))

6 The reciprocal of 4 is ..... . ($\frac{4}{1}$ or − 4 or $\frac{1}{4}$ or $\frac{4}{4}$)

7 $\frac{3}{15} \div \frac{6}{5}$ = ... km. ($\frac{1}{6}$ or $\frac{2}{5}$ or 6 or $\frac{6}{15}$)

4) Answer the following :

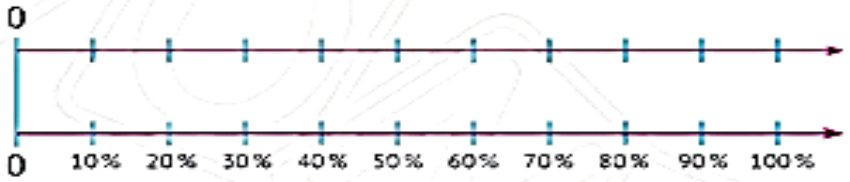
a) Calculate the surface area of this prism



b)

Maha got a score of 40 in the mathematics test. She got 80% in the test.

Use the following double number line to show the total test score.



c) A dinner bill is 600 L.E , there is a 15% tax , calculate the bill after adding the tax

.....

d) Ahmed drew a shape with the coordinate points (3 , −3), (−3 , −1), and (2 , 2). Is the shape an acute triangle?