

MASTERMIND ENGLISH MEDIUM SCHOOL

CLASS VIII (CAMBRIDGE)

MATHEMATICS D

PRACTICE WORKSHEET – 01

(05.04.2020 – 09.04.2020)

Practice work:

Day 1

- The scale of building of building plan is 1cm to 50cm. Find:
 - The actual length of one of the bedrooms if it is represented by 9.2cm.
 - The length of the plan that is represents an actual length of 28m.
- A map is scaled 1cm to 3km. Find:
 - Original length if the map marked is 3cm.
 - The length of map if actual distance is 7.5km.
 - R.F of the map.
- A scale of 5cm to 2Km is used for a map.
 - The distance between two villages is 15km. What is the distance represented on the map?
 - A rectangular field measures 15cm by 7cm on the map. Find the actual area of the field in hectares.
 - Represent the scale in 1:n.

Day 2

- A model of a ship is made to a scale of 1:200. The volume of a hall on the model is 250cm^3 . Find the volume of the hall on the actual ship in m^3 .
- A map is drawn to a scale of 1:60000. A rectangular field measures 17.5cm by 12.5cm on the map. Calculate the actual area of the field in hectares.
- On a map whose scale is 1:50000, a housing estate is represented by an area of 24cm^2 . Find, in cm^2 , the area representing this housing estate on a map whose scale is 1:100000.

Day 3

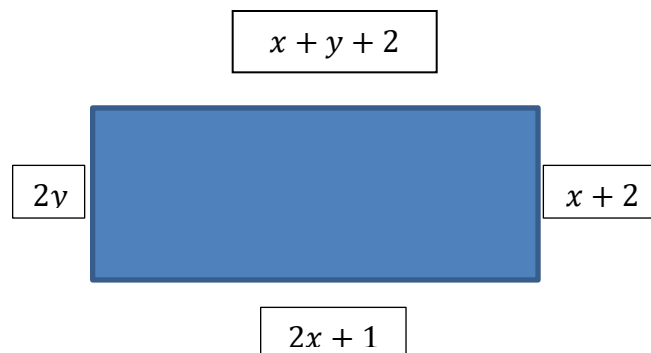
- Given that 2cm on a map represents 3km on the ground.
 - Express the scale of the map in the form 1:n
 - Calculate, in mm^2 , the area of the map which represents a lake of area 8100ha (hectares).
- The scale of map is 1:20000. Find the area on the map which represents 124km^2 .
- Solving the following simultaneous equations:
 - $\frac{2x}{3} - \frac{y}{9} = 6$, $x - \frac{y}{3} = 6$
 - $\frac{1}{9}(5x + 2y) = x + y = 2x + 3y + 1$
 - $\frac{1}{5}(x + y) = \frac{1}{7}(x - y)$, $3x + 17y = 2$
 - $1.2x - 0.8y = 0.4$, $y + 0.1x = 0.3$

Day 4

1. Adding unity to the numerator as well as the denominator of fraction makes it equal to $\frac{4}{5}$. Subtracting 5 from each makes it equal to $\frac{1}{2}$. What is the fraction?
2. The difference between two numbers is 10 and their sum is equal two four times the smaller number. What the numbers?
3. In five years' time, a father will be three times as old as his son. Four years ago the father was six times as old as his son. Find their present ages.

Day 5

1. Find the perimeter in cm, of the rectangle shown below:



2. 7 cups of coffee and 4 pieces of cake cost £5.30 while 5 cups of coffee and 2 pieces of cake cost £3.40. Find the cost of one cup of coffee and one piece of cake.
3. Solve the simultaneous equation:
 - a. $3x - y = 12$, $2x + y = 13$
 - b. $7x - 2y = 21$, $4x + y = 57$

BEST OF LUCK

MASTERMIND ENGLISH MEDIUM SCHOOL
CLASS-VIII
CAMBRIDGE
MATHEMATICS-D
PRACTICE WORKSHEET-02
(05.4.20-09.4.20)

Q1) The length of a road is 1.2km. On a map the length of the road is 3cm.

a) Express the scale of the map as a ratio in the form 1: n where n is a positive integer.

b) The area of a field is $1.6km^2$. Calculate the area in cm^2 of the field represented on the map.

Q2) A map is drawn to a scale of 1:50,000. Calculate

a) The length of a road which appears as 3cm long on the map.

b) The length on the map of a lake which is 10km long.

Q3) Find the actual length represented on a drawing by 21.7cm when the scale is 1cm: 5m

Q4) Find the length on a drawing that represents 28.6m when the scale is 1cm: 10m

Q5) On a map of scale 1:20,000 the area of the forest is $50cm^2$. On another map the area of the forest is $8cm^2$. Find the scale of the second map.

Q6) On a map of scale 1cm to 2km, the area of a car park is $3cm^2$. What is the actual area of the car park in hectares? (1 hectare= $10,000m^2$)

Q7) If the scale is 1:10,000, what length will 45cm on the map represent (a) in km (b) in m

Q8) A scale of 2cm to 1km is used for a map.

a) The distance between two villages is 6km. What is the length represented on the map.

b) What is the area scale of the map?

c) Express the scale in the form 1: n

Q9) On a map whose scale is 1:50,000, a lake is found to have an area of $16cm^2$

a) Find the actual area of the lake

b) If the lake is a square, find the length of one its sides on actual ground

Q10) A map has a scale of 1cm to 3km

a) What length on actual ground does 3cm length on the map represents?

b) What length will represent 7.5km?

c) Write the scale in the form 1: n

ANSWERS

- 1a) 1:40000 (b) 10cm^2
- 2a) 1.5km (b) 20cm
- 3) 108.5m
- 4) 2.86cm
- 5) Actual area= 2km^2 ; Scale- 1cm: 0.5km
- 6) 1200 hectare
- 7a) 4.5km (b) 4500m
- 8a) 12cm (b) $4\text{cm}^2: 1\text{km}^2$ (c) 1:50,000
- 9a) 4km^2 (b) $x = 2\text{km}$
- 10a) 9km (b) 2.5cm (c) 1:300,000