SURE KEY EXAMINATIONS BOARD
PRIMARY LEAVING MOCK EXAMINATION
2022
MATHEMATICS

Time Allowed: 2 hours 30 minutes

Admission No.						Personal No.		

Candidate's Name: ....

Candidate's Signature: ....

School Name: ....

District Name: ....

Read the following instructions carefully:

1. Do not forget to write your **school** and **district name** on this paper.

2. This paper has two sections: **A** and **B**. Section **A** has **20** questions and Section **B** has **12** questions. The paper has **16 printed pages** altogether

3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.

4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.

5. **No calculators** are allowed in the examination room.

6. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.

7. Do not fill anything in the table indicated: **"For Examiners' Use only"** and boxes

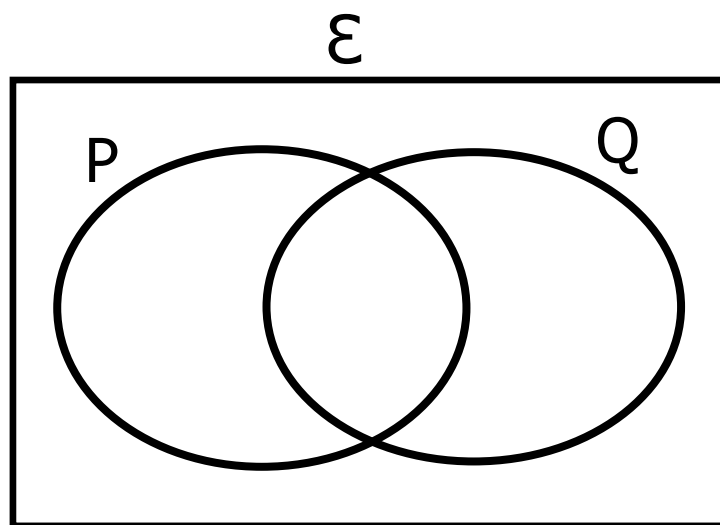## SECTION A: 40 MARKS

Answer **all** questions in this Section

Questions **1** to **20** carry two marks each

1. Workout: 2 3
              x   4
              _____

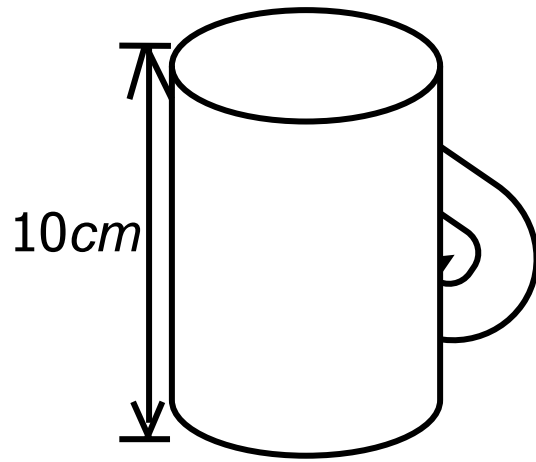2. Correct 6.899 to two decimal places.

3. In the Venn diagram below, shade $(P-Q)'$

4. Simplify: $18x - 5(3x + 7)$.

5. 4 text books cost Sh.24,000. Find the cost of 8 similar text books.

6.	Maama Muzeyi prepared 4.5 litres of milk and served it to the children in an orphanage using the cup with a base area of 9cm^2 shown below.
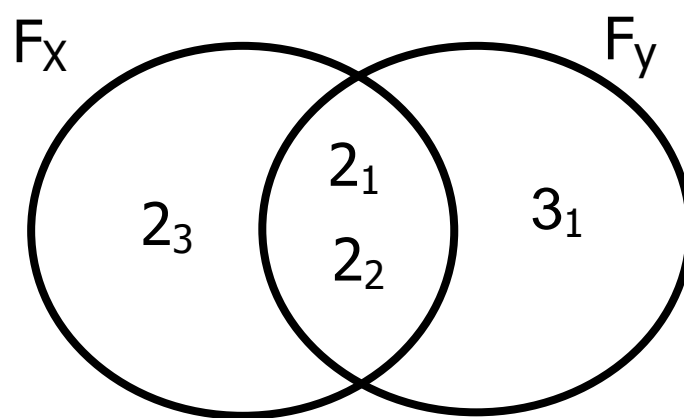

10cm

How many children did she serve?

7.	Using a ruler, a sharp pencil and a protractor only, draw the supplement of 105^0 in the space below.

8.	$\frac{5}{8}$ of water in a tank lasts a school 45 days. How long will $\frac{2}{3}$ of the water in the tank last the school?

9. Factors of **X** and **Y** are given in the Venn diagram below.

F_X $\quad$ F_y

2_1

2_3 $\quad$ 3_1

2_2

Find the value of $F_X \cup F_y$.

10. Given, $1\,7_n \; = \; 15_{ten}$ find the base represented by n.
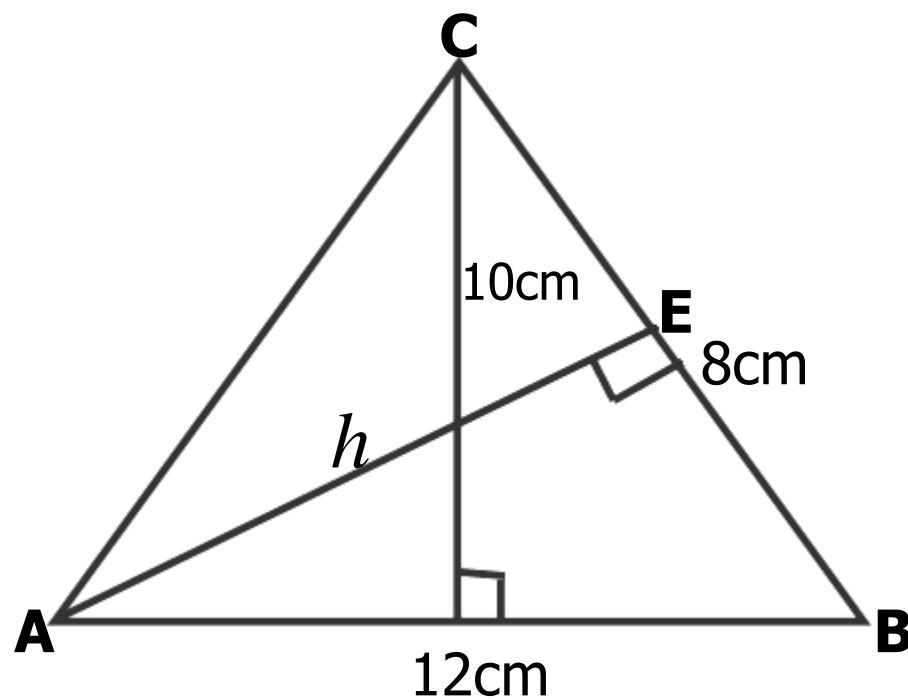
11. Without dividing, prove whether 4291 is divisible by 9.

12. A torch uses batteries of 1.5 volts. In order for the torch to work, it requires 12 volts. How many such batteries will the torch require?

13. Workout (42÷6) − (30÷6) using distributive property.

14. Find the length **AE** in the figure below.

15. The probability of Arsenal FC winning a game is $\frac{3}{5}$. If the team wins 9 games, how many games did Arsenal lose that season?

Turn Over

16. The digital clock watch below shows the time Papa set to wake him up for revision in the morning. Use it to fill in the spaces below.

Papa woke up at …………. minutes to …………... o'clock in the morning.

17. Given, $^-4$, 3, $^-1$, 0 and 2. Arrange in ascending order.

18. The average height of four girls, Sarah, Jane, Mary and Annet is 120cm. Sarah is 100cm and Jane is 130cm tall. Find the height of Mary if Jane is as tall as Annet.

19. Nassiwa is m years but 17 years younger than Reachel. How old is Nassiwa if their total age is 31 years?

20.   What is the bearing of **Town X** from **Town Y** in the diagram below?

N

Town Y

060^0

Town X
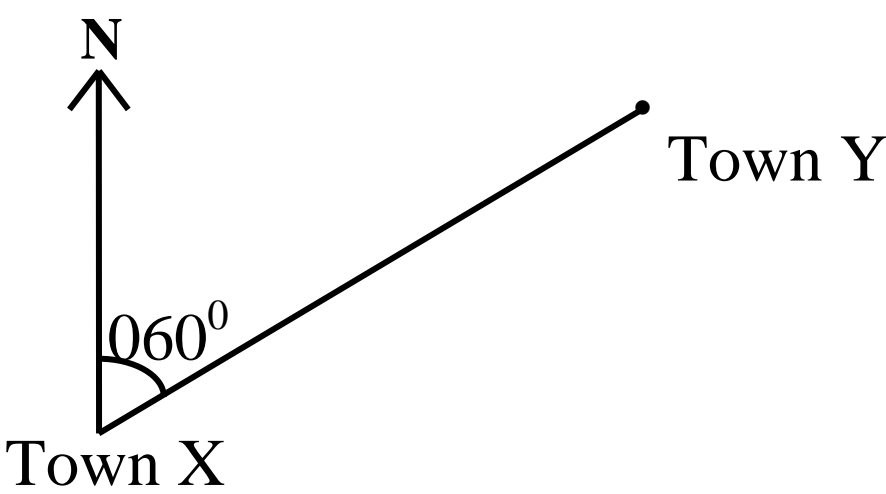
SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets

21.   During a birthday, 20 candidates drank Fanta (F), 4 drank Mrinda (M) only, 3 drank both drinks while 9 candidates did not like Fanta.

(a)   Use the above information to complete the Venn diagram below.
                                                                (02 Marks)

n(F) = 20   n(M)

....   3   4

....
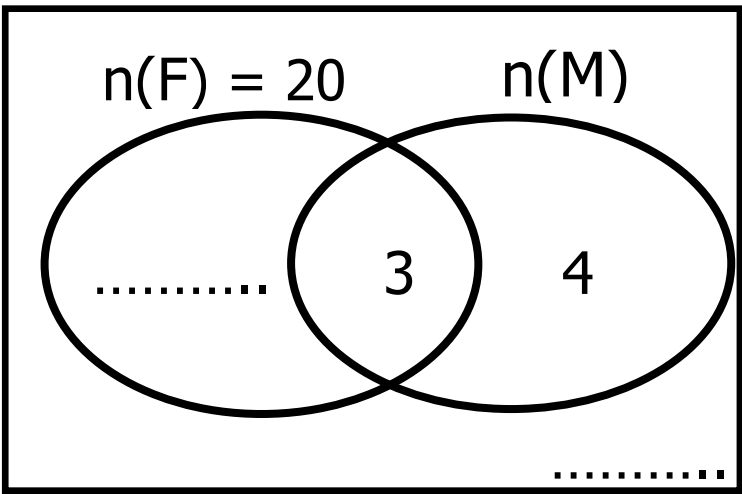
(b)   Find the probability of picking a candidate who drank only one type of Soda.   (02 Marks)

22. (a) Workout: $\dfrac{2}{3} - \dfrac{1}{4} + \dfrac{1}{6}$. (03 Marks)

(b) Workout: $\dfrac{2.4 \times 0.6}{0.12}$ (02 Marks)

23. John went for shopping and bought the following items

4 bottles of 500ml of Soda at Sh.2,500 each litre.
500g of salt at Sh.9,000 for every 1½kg.
3 sachets of cooking oil at Sh.3,500 for every 7 sachets.

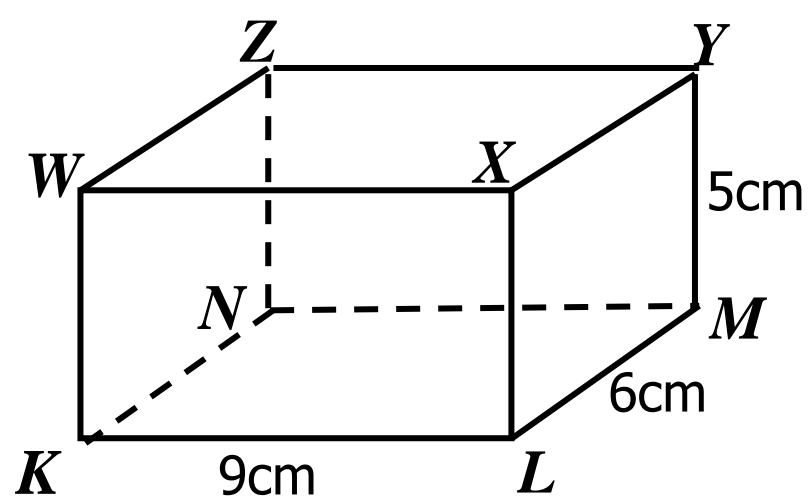How much did he pay for all the items she bought? (05 Marks)

24.   (a)   Using a ruler, a pencil and a pair of compasses only,
           Construct triangle MAP such that AP = 8cm, angle MAP = 120^0
           and MA = 6cm.   (03 Marks)

      (b)   Measure length MP _____cm.   (01 Mark)

      (c)   Measure angle APM. _____   (01 Mark)

25. The diagram below shows a cuboid *KLMNWXYZ* in which $\overline{KL}$ = 9cm. $\overline{LM}$ = 6cm and $\overline{MY}$ = 5cm.

(a) Determine the length of lines *KNZ* and *LMN* in cm.

    (i)   *KNZ*   (01 Mark)

    (ii)   *LMN*   (01 Mark)

(b) Calculate the area of rectangle *LXYM*.   (02 Marks)

(c) Workout the volume of the cuboid *KLMNWXYZ*.   (02 Marks)

26. A trader bought 20 watermelons at Sh.2,000 each but x of them got spoilt. He sold the remaining melons at Sh.3,000 each and made a profit of Sh.8,000. Calculate the value of x.   (03 Marks)

27. The sums of the values in the table below are the same vertically, horizontally and diagonally. Fill in the missing values to complete the table.   (05 Marks)

....	....	28	17
25	20	19	....
....	24	13	18
26	15	....	29

28. The table below shows the transport fares charged to the 60 passengers travelling to different areas along Mbarara Road by Link bus.

| Route	Transport fare
Kampala to Lukaya	Sh.10,000
Kampala to Masaka	Sh.12,000
Kampala to Kinoni	Sh.15,000
Kampala to Lyantode	Sh.20,000
Kampala to Mbarara	Sh.25,000

(a) If 6 passengers got out at Lukaya, 18 got out at Masaka and 5 boarded going to Mbarara, then 15 got out when they reached Kinoni. How much money was collected by the bus from Kampala to Kinoni? (04 Marks)

(b) How many passengers reached Mbarara town? (01 Mark)

(c) How much was the DOS supposed to pay if he travelled with 4 other teachers from Kampala to Kinoni? (01 Mark)
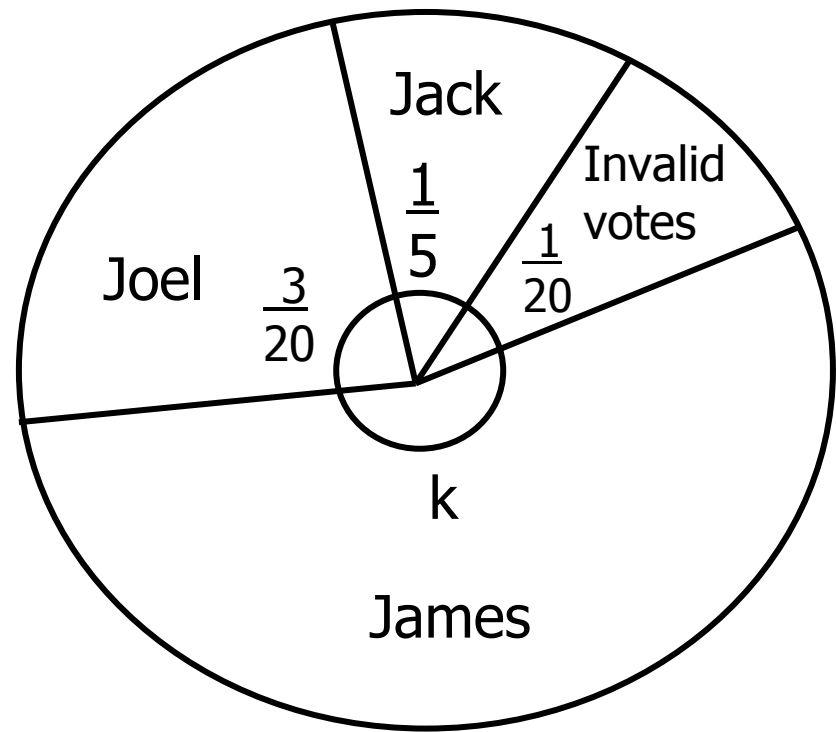
29. In the figure below, ZVT is parallel to PQUW. Angle ZVQ = 50^0 and angle TVU = 53^0.
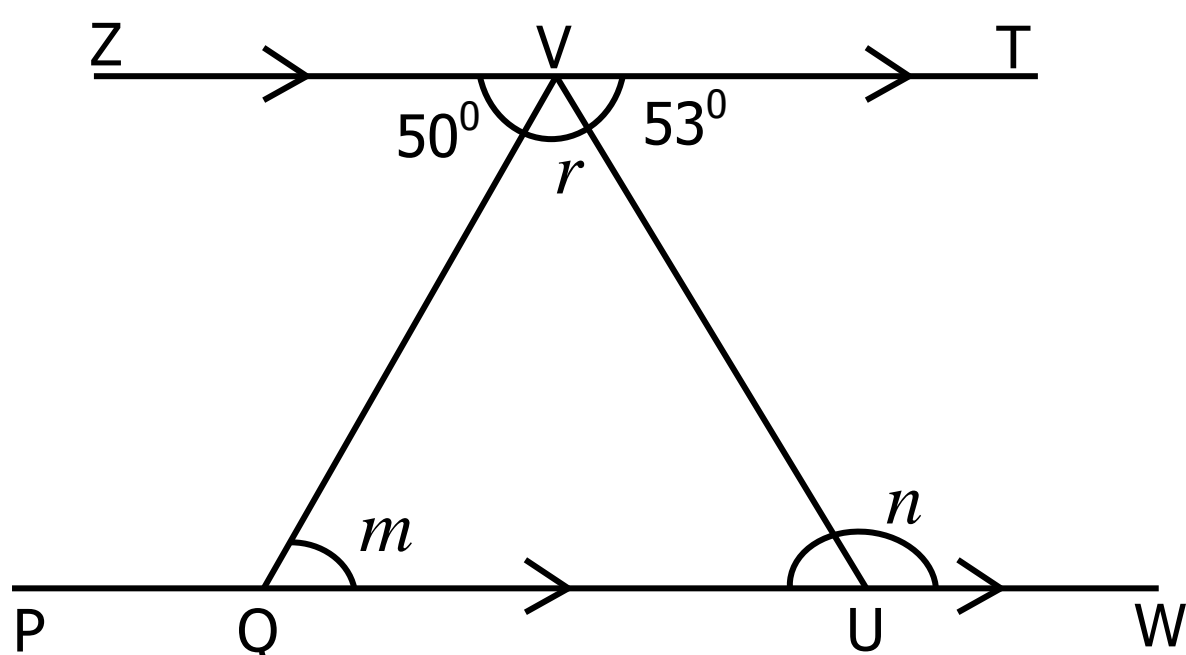
(a) What is the size of angle r in degrees? (02 Marks)

(b) Find the value of n. (01 Mark)

(c) Calculate the size of angle VQU. (02 Marks)

30. The Pie-Chart below shows how each of the 3 boys got the votes in the Prefectorial Elections.
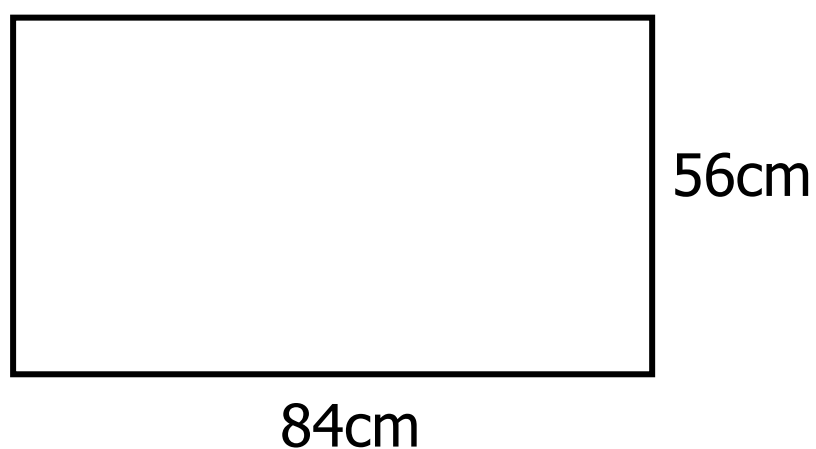

(a) If James got 324 more votes than Joel, how many invalid votes were counted? (05 Marks)

(b) How many votes did Jack get? (01 Mark)

31. Shukuran kneaded a rectangular piece of dough of length 84cm and width 56cm shown below to cut out circular pancakes.

56cm

84cm

(a) If she cut 6 pancakes along the length and 4 pancakes of the same size along the width. Find the circumference of one of the circular pancake she cut out. (02 Marks)

(Use $\pi = \frac{22}{7}$)

(b) Calculate the area of the unused piece of dough after Shukuran cut out all the pancakes. (03 Marks)

Turn Over

32. Mary left town **P** at 9:00a.m. and drove at 30 km/h for 2 hours to town **Q**. She rested for half an hour at town **Q**. She left town Q and drove for 1½ hours at 40 km/h to town **R**. She rested for half an hour at town R. She then left town R and drove back to town P at 80Km/h.

(a) Represent Mary's journey on the graph below. (03 Marks)
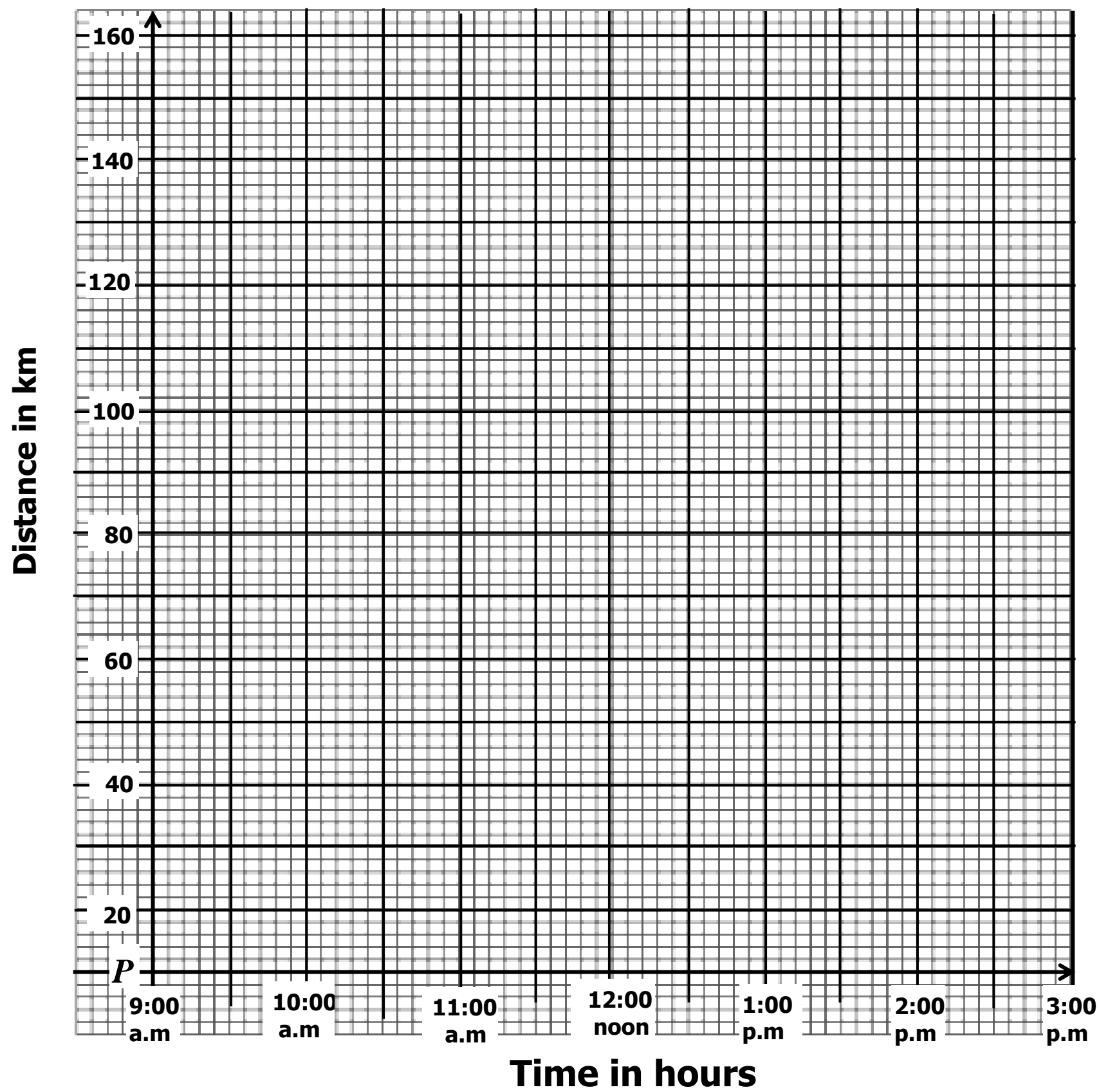
(b) Calculate her average speed for the whole journey. (02 Marks)