



OSDAV Public School, Kaithal

Novmber Exam (2024-25)

Class: VIII

Subject: Maths

SET-A

Time: 1 hr 20 min.

M.M.:30

General Instructions:- All questions are compulsory.

Q.No.	Questions	Marks										
<b>Section –A</b>												
1)	The minimum number of dimensions to construct a square is: (a) 1 (b) 2 (c) 3 (d) 5	1										
2)	The class size of 90-120 is: (a) 110 (b) 105 (c) 115 (d) 120	1										
3)	Linear equation in one variable has (a) only one variable with any power (b) only one term with a variable (c) only one variable with power one (d) only constant term	1										
4)	<b>Assertion: The range of the data 25,18,20,22,16,6,17,15,12,30 is 22.</b> <b>Reason: Range = highest observation-lowest observation.</b> (a) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion. (b) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion. (c) Assertion is true but Reason is false. (d) Assertion is false but Reason is true.	1										
<b>Section –B</b>												
5)	Solve for y: $\frac{11(7y+2)}{6y-2} = 5$	2										
6)	The sum of three consecutive multiples of 7 is 777. Find these multiples.	2										
7)	The weekly pocket expenses (in ₹) of 20 students of a class are given below: <b>62, 80, 75, 84, 60, 62, 100, 87, 78, 94, 86, 78, 86, 90, 103, 96, 87, 64, 72, 85</b> Construct a frequency table with class intervals 60-70, 70-80.	2										
<b>Section –C</b>												
8)	A card is drawn from a well shuffled deck of 52 cards, find the probability that the card drawn is (a) a diamond (b) a red 10 (c) an ace	3										
9)	Solve for x : $\frac{17(2-x) - 5(x+12)}{1-7x} = 8$	3										
10)	Construct a quadrilateral ABCD in which sides AB=BC=4cm, CD=AD=5cm and diagonal AC= 6.5 cm. Also Measure $\angle A$ .	3										
11)	The following data shows the agricultural production in India during a certain year: <table border="1" style="width: 100%; text-align: center;"><thead><tr><th>Food grain</th><th>Rice</th><th>Wheat</th><th>Coarse cereals</th><th>Pulses</th></tr></thead><tbody><tr><td>Production (in millions of tonnes)</td><td>57</td><td>76</td><td>38</td><td>19</td></tr></tbody></table> Draw a <b>pie chart</b> to represent the above data.	Food grain	Rice	Wheat	Coarse cereals	Pulses	Production (in millions of tonnes)	57	76	38	19	3
Food grain	Rice	Wheat	Coarse cereals	Pulses								
Production (in millions of tonnes)	57	76	38	19								
<b>Section –D</b>												
12)	Construct a quadrilateral PQRS in which PQ=5cm, QR=6cm, $\angle P = 75^\circ$ , $\angle Q = 105^\circ$ , $\angle R = 90^\circ$ using ruler and compass only.	4										
13)	The sum of the digits of a two digit number is 12. The number obtained by interchanging the digits exceeds the original number by 54. Find the original number.	4										



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SET-B

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M.M.:30

General Instructions:- All questions are compulsory.

Q.No.	Questions	Marks										
<b>Section –A</b>												
1)	The minimum number of dimensions to construct a rectangle is: (a) 1 (b) 2 (c) 3 (d) 5	1										
2)	The class mark of 110-130 is: (a) 110 (b) 105 (c) 115 (d) 120	1										
3)	Solution of a Linear equation in one variable is always: (a) a natural number (b) a whole number (c) a real number (d) an integer	1										
4)	<b>Assertion: The range of the data 25,18,20,22,16,6,17,15,12,30 is 24.</b> <b>Reason: Range = highest observation-lowest observation.</b> (a) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion. (b) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion. (c) Assertion is true but Reason is false. (d) Assertion is false but Reason is true.	1										
<b>Section –B</b>												
5)	The sum of three consecutive multiples of 6 is 666. Find these multiples.	2										
6)	The weekly pocket expenses (in ₹) of 20 students of a class are given below: <b>62, 80, 75, 84, 60, 62, 100, 87, 78, 94, 86, 78, 86, 90, 103, 96, 87, 64, 72, 85</b> Construct a <b>frequency table</b> with class intervals 60-70, 70-80.	2										
7)	Solve for y: $\frac{6x+1}{3} + 1 = \frac{x-3}{6}$	2										
<b>Section –C</b>												
8)	Construct a quadrilateral ABCD in which sides AB=CD=4cm, BC=AD=5cm and diagonal AC= 6.5 cm. Also Measure $\angle A$ .	3										
9)	Solve for y: $\frac{2(2y-4)+6}{3y-(4+5y)} = \frac{3}{5}$	3										
10)	A card is drawn from a well shuffled deck of 52 cards, find the probability that the card drawn is (a) a face card (b) a red card (c) a black 10	3										
11)	The following data shows the agricultural production in India during a certain year: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Food grain</th> <th>Rice</th> <th>Wheat</th> <th>Coarse cereals</th> <th>Pulses</th> </tr> </thead> <tbody> <tr> <td>Production (in millions of tonnes)</td> <td>57</td> <td>76</td> <td>38</td> <td>19</td> </tr> </tbody> </table> Draw a <b>pie chart</b> to represent the above data.	Food grain	Rice	Wheat	Coarse cereals	Pulses	Production (in millions of tonnes)	57	76	38	19	3
Food grain	Rice	Wheat	Coarse cereals	Pulses								
Production (in millions of tonnes)	57	76	38	19								
<b>Section –D</b>												
12)	Construct a quadrilateral PQRS in which PQ=5.5cm, QR=6.5 cm, $\angle P = 45^\circ$ , $\angle Q = 135^\circ$ , $\angle R = 90^\circ$ using ruler and compass only.	4										
13)	A steamer goes downstream and covers distance between 2 ports in one and a half hrs. It covers the same distance upstream in 2 hrs. If speed of stream is 5 km/hr, find (a) Speed of steamer in still water. (b) Distance between 2 ports.	4										



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**OSDAV Public School, Kaithal**  
**November Exam (2024-25)**  
**Class: VIII(Marking Scheme)**  
**Subject: Maths**

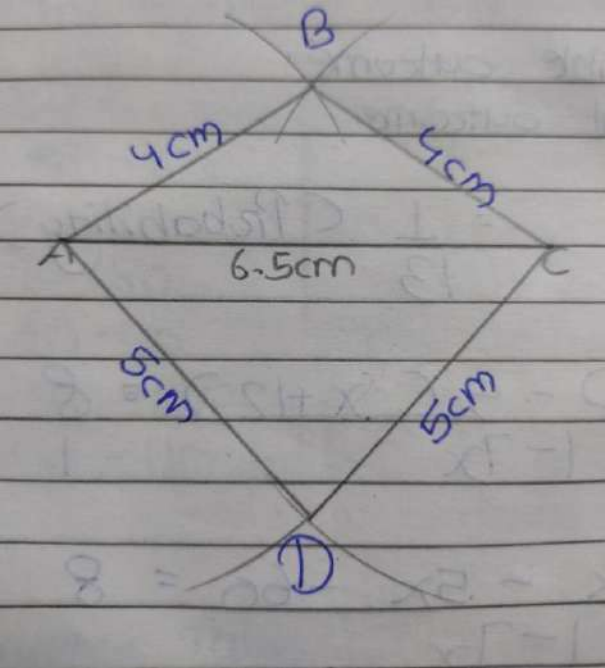
**SET-A**

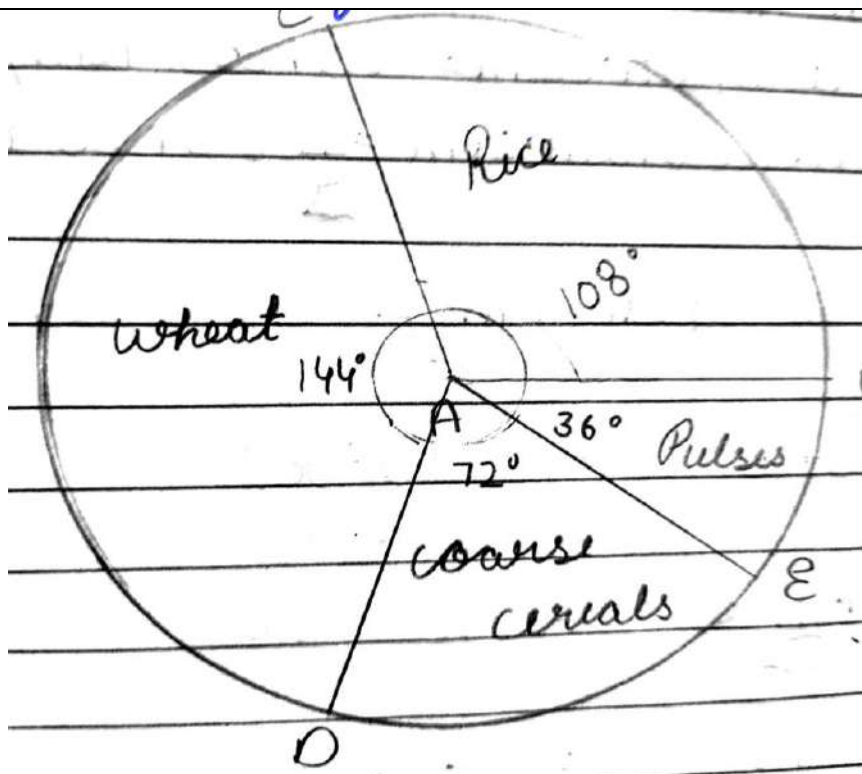
**Time: 1 hr 20 min.**

**M.M.:30**

**General Instructions:- All questions are compulsory.**

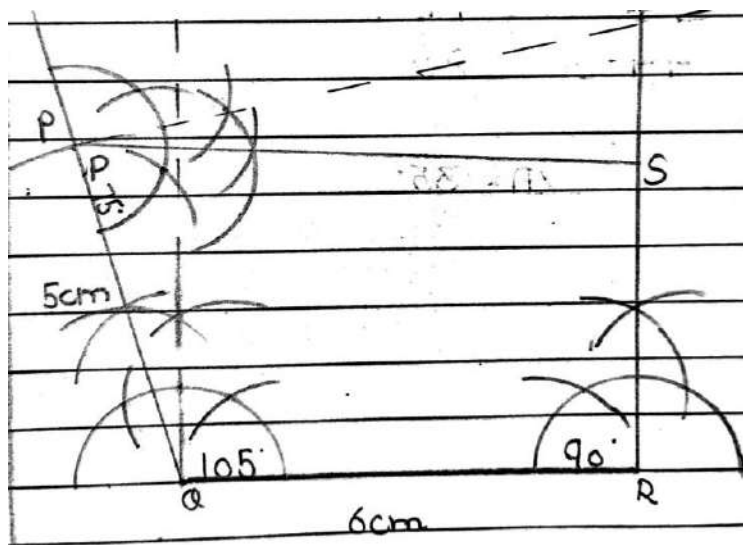
Q.No.	Questions		Marks																					
<b>Section –A</b>																								
1)	(a) 1	<b>1</b>	<b>1</b>																					
2)	30	<b>1</b>	<b>1</b>																					
3)	(c) only one variable with power one	<b>1</b>	<b>1</b>																					
4)	(d) Assertion is false and Reason is true	<b>1</b>	<b>1</b>																					
<b>Section –B</b>																								
5)	$\frac{11(7y+2)}{6y-2} = 5$ $\frac{77y+22}{6y-2} = 5$ $77y+22 = 30y-10$ $47y = -32$ $Y = -32/47$	$\frac{1}{2}$  <b>1</b>  $\frac{1}{2}$	<b>2</b>																					
6)	<p>The sum of three consecutive multiples of 7 is 777.            Let the 3 multiples of 7 are 7x, 7(x+1), 7(x+2)            ATQ  <math>7x+7x+7+7x+14 = 777</math>  <math>21x = 777-21</math>  <math>X = 756/21</math>  <math>X = 36</math>            Multiples of 7 are 252,259,266</p>	$\frac{1}{2}$  $\frac{1}{2}$  $\frac{1}{2}$  $\frac{1}{2}$																						
7)	 <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Pocket expenses in ₹</th> <th style="text-align: center;">Tally Marks</th> <th style="text-align: center;">Frequency</th> </tr> </thead> <tbody> <tr> <td>₹60 - 70</td> <td style="text-align: center;">    </td> <td style="text-align: center;">4</td> </tr> <tr> <td>70 - 80</td> <td style="text-align: center;">    </td> <td style="text-align: center;">4</td> </tr> <tr> <td>80 - 90</td> <td style="text-align: center;">     </td> <td style="text-align: center;">5</td> </tr> <tr> <td>90 - 100</td> <td style="text-align: center;">   </td> <td style="text-align: center;">3</td> </tr> <tr> <td>100 - 110</td> <td style="text-align: center;">  </td> <td style="text-align: center;">2</td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Total</b></td> <td style="text-align: center;"><b>20</b></td> </tr> </tbody> </table>	Pocket expenses in ₹	Tally Marks	Frequency	₹60 - 70		4	70 - 80		4	80 - 90		5	90 - 100		3	100 - 110		2	<b>Total</b>		<b>20</b>	$\frac{1}{2}$ for tally marks  <b>1.5</b> for frequency	<b>2</b>
Pocket expenses in ₹	Tally Marks	Frequency																						
₹60 - 70		4																						
70 - 80		4																						
80 - 90		5																						
90 - 100		3																						
100 - 110		2																						
<b>Total</b>		<b>20</b>																						
<b>Section –C</b>																								
8)	<p>Probability = <math>\frac{\text{favourable outcomes}}{\text{total outcomes}}</math></p>	<b>1</b>	<b>3</b>																					

	<p>(a) <math>p(\text{a diamond}) = \frac{13}{52} = \frac{1}{4}</math></p> <p>(b) <math>p(\text{a red 10}) = \frac{2}{52} = \frac{1}{26}</math></p> <p>(c) <math>p(\text{an ace}) = \frac{4}{52} = \frac{1}{13}</math></p>	1																									
9)	$\frac{17(2-x) - 5(x+12)}{34-17x-5x-60} = 8$ $\frac{1-7x}{-22x-26} = 8$ $\frac{1-7x}{-22x-26} = 8$ $1-7x = 8(-22x-26)$ $1-7x = -176x-208$ $-7x+176x = -208-1$ $169x = -209$ $x = \frac{-209}{169}$	1 $\frac{1}{2}$ $\frac{1}{2}$	3																								
10)	 <p>Angle A = <math>90^\circ</math></p>	$6 \times \frac{1}{2} = 3$	3																								
11)	<table border="1"> <thead> <tr> <th>Food grain</th> <th>Production</th> <th>Fraction</th> <th>Sector angle</th> </tr> </thead> <tbody> <tr> <td>Rice</td> <td>57</td> <td><math>\frac{57}{190}</math></td> <td><math>\frac{57}{190} \times 360^\circ = 108^\circ</math></td> </tr> <tr> <td>Wheat</td> <td>76</td> <td><math>\frac{76}{190}</math></td> <td><math>\frac{76}{190} \times 360^\circ = 144^\circ</math></td> </tr> <tr> <td>Coarse cereals</td> <td>38</td> <td><math>\frac{38}{190}</math></td> <td><math>\frac{38}{190} \times 360^\circ = 72^\circ</math></td> </tr> <tr> <td>Pulses</td> <td>19</td> <td><math>\frac{19}{190}</math></td> <td><math>\frac{19}{190} \times 360^\circ = 36^\circ</math></td> </tr> <tr> <td></td> <td>190</td> <td></td> <td></td> </tr> </tbody> </table>	Food grain	Production	Fraction	Sector angle	Rice	57	$\frac{57}{190}$	$\frac{57}{190} \times 360^\circ = 108^\circ$	Wheat	76	$\frac{76}{190}$	$\frac{76}{190} \times 360^\circ = 144^\circ$	Coarse cereals	38	$\frac{38}{190}$	$\frac{38}{190} \times 360^\circ = 72^\circ$	Pulses	19	$\frac{19}{190}$	$\frac{19}{190} \times 360^\circ = 36^\circ$		190			1.5 for table and 1.5 for pie chart	3
Food grain	Production	Fraction	Sector angle																								
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	190																										



**Section -D**

12)



4

4

13)

Let ones place digit =  $x$   
 Tens place =  $12-x$   
 Original no. =  $10(12-x)+x$   
 $= 120-10x+x = 120-9x$   
 On interchanging the digits  
 New no. =  $10x+12-x = 9x+12$   
 ATQ  
 New no. - original no. = 54  
 $(9x+12) - (120-9x) = 54$   
 $9x + 12 - 120 + 9x = 54$   
 $18x = 54 + 108 = 162$   
 $X = 162/18 = 9$   
 Original no. =  $120-9 \times 9 = 120-81 = 39.$

$\frac{1}{2}$

1

$\frac{1}{2}$

$1\frac{1}{2}$

$\frac{1}{2}$

4




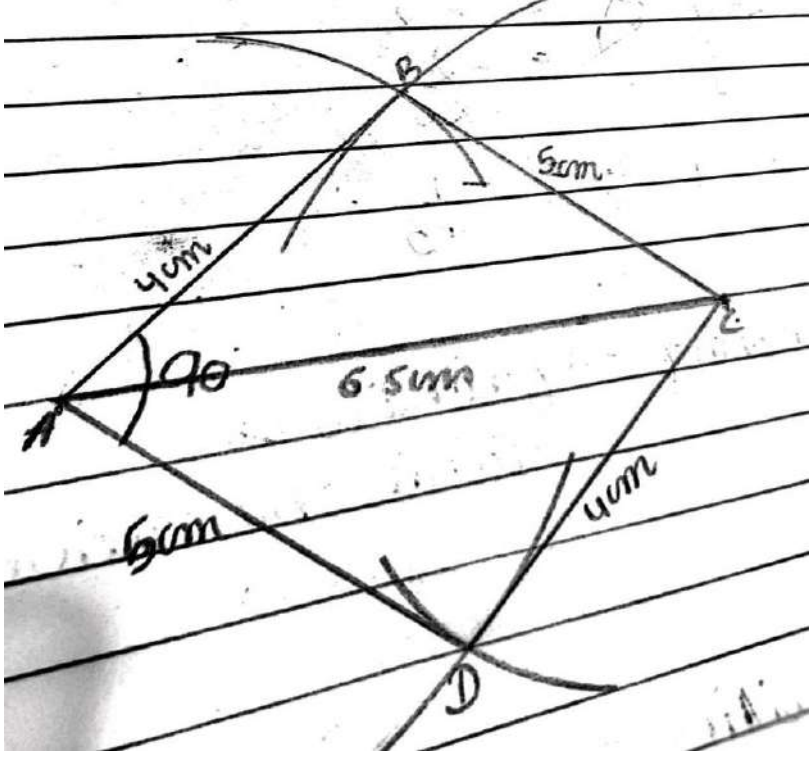
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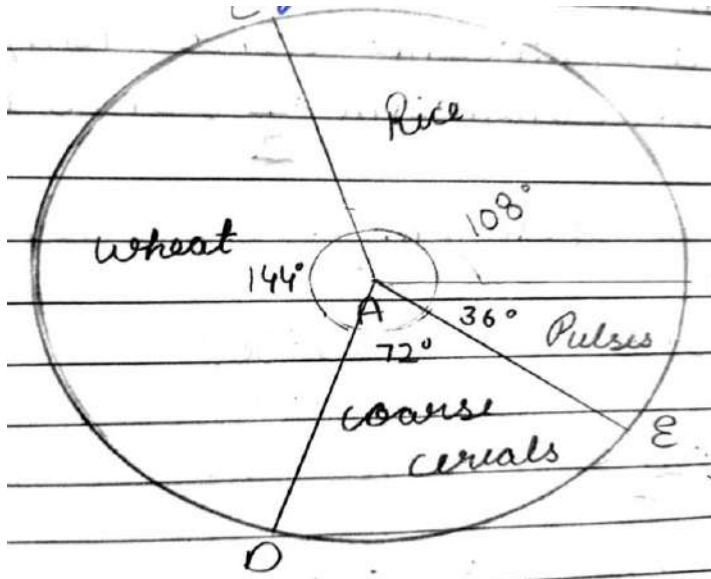
**M.M.:30**

Q.No.	Questions		Marks
<b>Section –A</b>			
1)	(b) 2	1	1
2)	(d) 120	1	1
3)	(c) a real number	1	1
4)	(a) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.	1	1
<b>Section –B</b>			
5)	<p>The sum of three consecutive multiples of 6 is 666.            Let the 3 multiples of 6 are <math>6x, 6(x+1), 6(x+2)</math>            ATQ  <math>6x+6x+6+6x+12 = 666</math>  <math>18x = 666-18</math>  <math>X = 648/18</math>  <math>X = 36</math>            Multiples of 7 are 216,222,228</p>	$\frac{1}{2}$  $\frac{1}{2}$  $\frac{1}{2}$  $\frac{1}{2}$	2
6)	 <p style="font-size: small;">           The image shows a handwritten table with three columns: 'Pocket expenses in ₹', 'Tally Marks', and 'Frequency'. The rows are:           <ul style="list-style-type: none"> <li>₹60 - 70: Tally marks 'IIII', Frequency '4'</li> <li>70 - 80: Tally marks 'IIII', Frequency '4'</li> <li>80 - 90: Tally marks 'IIII II', Frequency '7'</li> <li>90 - 100: Tally marks 'III', Frequency '3'</li> <li>100 - 110: Tally marks 'II', Frequency '2'</li> <li>Total: Tally marks 'IIII II II II', Frequency '20'</li> </ul> </p>	$\frac{1}{2}$ for tally marks  1.5 for frequency	2
7)	$\frac{6x+1}{3} + 1 = \frac{x-3}{6}$ $\frac{6x+1+3}{3} = \frac{x-3}{6}$ $\frac{6x+4}{3} = \frac{x-3}{6}$ $6(6x+4) = 3(x-3)$ $36x - 3x = -9 - 24$ $33x = -33$ $X = -1$	$\frac{1}{2}$  1  $\frac{1}{2}$	2
<b>Section –C</b>			

8)	 <p>Angle A = <math>90^\circ</math></p>	$\frac{1}{2}$ <b>X6</b>	3
9)	$\frac{2(2y-4)+6}{3y-(4+5y)} = \frac{3}{5}$ $\frac{4y-8+6}{3y-4-5y} = \frac{3}{5}$ $5(4y-2) = 3(-2y-4)$ $20y-10 = -6y-12$ $20y + 6y = -12+10$ $26y = -2$ $Y = \frac{-2}{26} = \frac{-1}{13}$	1  1  $\frac{1}{2}$  $\frac{1}{2}$	3
10)	<p>Probability = <math>\frac{\text{favourable outcomes}}{\text{total outcomes}}</math></p> <p>(a) <math>P(\text{a face card}) = \frac{12}{52} = \frac{3}{13}</math></p> <p>(b) <math>P(\text{a red card}) = \frac{26}{52} = \frac{1}{2}</math></p> <p>(c) <math>P(\text{a black 10}) = \frac{2}{52} = \frac{1}{26}</math></p>	1  1  1	3

11)

Food grain	Production	fraction	sector angle
Rice	57	$\frac{57}{190}$	$\frac{57}{190} \times 360 = 108$
Wheat	76	$\frac{76}{190}$	$\frac{76}{190} \times 360 = 144$
Coarse cereals	38	$\frac{38}{190}$	$\frac{38}{190} \times 360 = 72$
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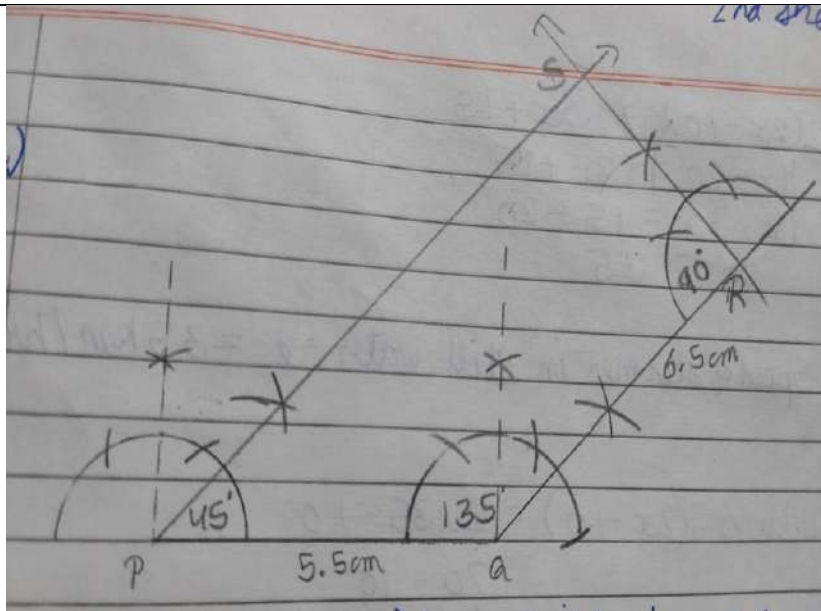


1.5 for table and 1.5 for pie chart

3

Section -D

12)



4

4



13)	Let the speed of steamer in still water = x km/hr Speed of stream = 5 km/hr Speed covered in downstream = x+5 km/hr Speed covered in upstream = x-5 km/hr distance covered in downstream = $\frac{3}{2}(x+5)$ km = $\frac{3}{2}x + \frac{15}{2}$  distance covered in upstream = $2(x-5)$ km = $2x-10$ km ATQ $\frac{3}{2}x + \frac{15}{2} = 2x - 10$ $3x + 15 = 2(2x - 10)$ $3x + 15 = 4x - 20$ $4x - 3x = 15 + 20$ X = 35 $\therefore$ speed of steamer in still water = 35 km/hr And Distance between two ports = $2x-10 = 70-10 = 60$ km	$\frac{1}{2}$  <b>1</b> $\frac{1}{2}$  <b>1</b>  $\frac{1}{2}$  $\frac{1}{2}$	<b>1</b>
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