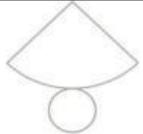
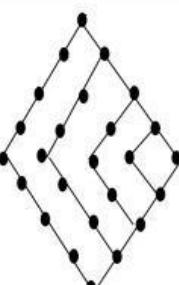
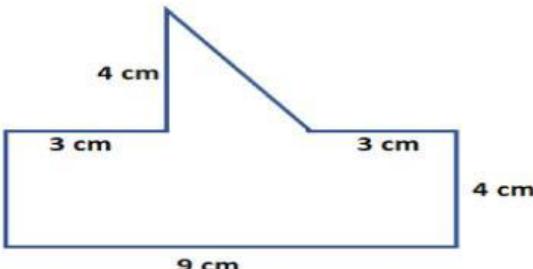
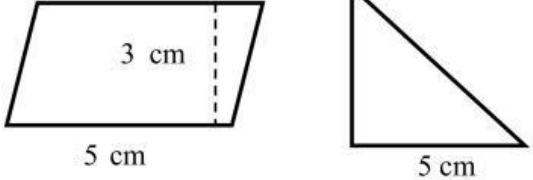
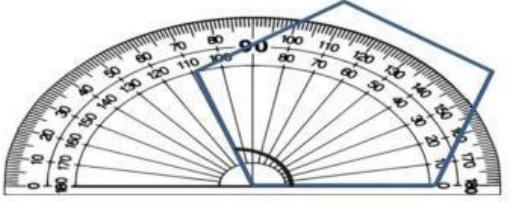


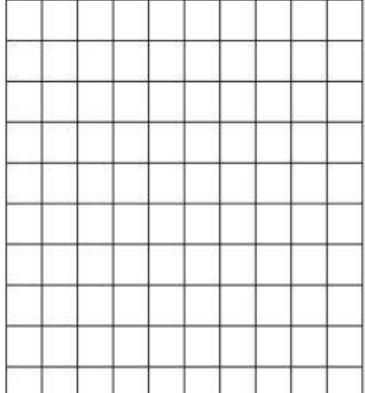
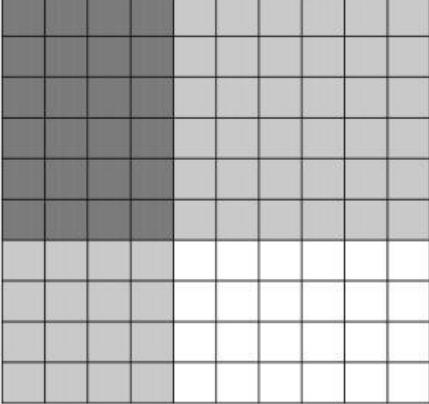
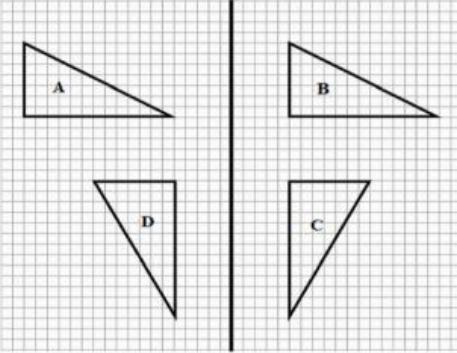
Q1	Sub-question	Model Answer	Marks (30 Marks)
MCQs	i	A $\frac{19}{5}$	2 Marks
	ii	B $12 + n = 20$	2 Marks
	iii	B Scalene triangle	2 Marks
	iv	D 6	2 Marks
	v	D 	2 Marks
	vi	C 400KL	2 Marks
	vii	A Paro, Trashigang, Punakha and Samtse	2 Marks
	viii	C 2, 3, 5, 7, 11	2 Marks
	ix	C 22.8 kg	2 Marks
	x	B 36	2 Marks
	xi	A Paro	2 Marks
	xii	B 4 times	2 Marks
	xiii	D angle b: angle d: angle a: angle c	2 Marks
	xiv	B I and III	2 Marks
	xv	B 4	2 Marks

### SECTION B [30 MARKS]

Q2a	<p>How many dots will be there in figure 5? Draw figure 5. [2]</p> <p>Figure 1      Figure 2      Figure 3      Figure 4      Figure 5</p>	 <p>There will be 25 dots in figure 5.</p>	<p>Drawing-1 mark</p> <p>1 mark</p>
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Q2b	<p>Tshokey multiplied a number by 8 and got the product 40. [3]</p> <p>i. Write the equation to show the above problem.</p> <p>ii. Solve the problem.</p>	<p>i. <math>8n = 40</math></p> <p>ii. <math>8n = 40</math>  <math>n = 40 \div 8</math> -----  <math>n = 5</math> -----  So, n is 5.</p>	1 mark 1 mark 1 mark												
Q3a	<p>Calculate the total area of the shape. [3]</p> 	<p>Area of <math>\triangle = b \times h \div 2</math>  <math>A = 3 \times 4 \div 2</math>  <math>A = 12 \div 2 = 6 \text{ cm}^2</math> -----</p> <p>Area of <math>\square = l \times w</math>  <math>A = 9 \times 4 = 36 \text{ cm}^2</math> -----</p> <p>Total area = <math>6 + 36 = 42 \text{ cm}^2</math> -----</p>	1 mark 1 mark 1 mark												
Q3b	<p>These shapes cover equal area. What is the height of a triangle? Show your work. [2]</p> 	<p>Area of <math>\square = b \times h</math>  <math>A = 5 \times 3 = 15 \text{ cm}^2</math> -----</p> <p>Area of <math>\triangle = b \times h \div 2</math>  <math>A = 5 \times h \div 2</math>  <math>15 = 5 \times 6 \div 2</math>  <math>= 30 \div 2 = 15 \text{ cm}^2</math>  So, h is 6 cm -----</p>	1 mark 1 mark												
Q4a	<p>The table shows number of students playing different games in one of the schools.</p> <table border="1" data-bbox="181 1370 714 1617"> <thead> <tr> <th>Games</th> <th>Numbers</th> </tr> </thead> <tbody> <tr> <td>Football</td> <td>20</td> </tr> <tr> <td>Basketball</td> <td>15</td> </tr> <tr> <td>Volleyball</td> <td>10</td> </tr> <tr> <td>Badminton</td> <td>13</td> </tr> <tr> <td>Table tennis</td> <td>12</td> </tr> </tbody> </table> <p>Pema calculated the mean as <math>20 + 15 + 10 + 13 + 12 = 70</math></p> <p>Do you agree with him? Support your answer with justification. [2]</p>	Games	Numbers	Football	20	Basketball	15	Volleyball	10	Badminton	13	Table tennis	12	<p>No, I don't agree with Pema because mean should be the average of the set of the data where total should be divided by the number of values in the set.</p> <p>So, mean is <math>70 \div 5 = 14</math> -----</p>	1 mark 1 mark
Games	Numbers														
Football	20														
Basketball	15														
Volleyball	10														
Badminton	13														
Table tennis	12														

Q4b	<p>Create a set of numbers where the mean is equal to median and the median is less than the mode. ( Mean = median &lt; mode ) [2]</p>	<p>Open ended question and the mark will be awarded according to the correctness of their answers.</p> <p>Sample response</p> <p>1, 2, 3, 4, 6, 6, 6 -----</p> <p>Mean = <math>1 + 2 + 3 + 4 + 6 + 6 + 6 = 28 \div 7 = 4</math> -----</p> <p>Median = 4 -----</p> <p>Mode = 6 -----</p> <p>So, Mean = Median &lt; mode -----</p>	
Q4c	<p>A boy measured one of the angles of a pentagon as 70 degree as shown. Do you think he measured the angle correctly? Give a reason to support your answer. [1]</p> 	<p>No, the boy did not measure the angle correctly as he read the wrong scale. The protractor shows the angle to be 110 degrees.</p>	1 mark
Q5a	<p>Dorji, a farmer sold 1.5 tonnes of potatoes and he got Nu 40 per kg. What is the total amount he got after selling the potatoes? [2]</p>	<p>1 tonne = 1000 kg  <math>1.5 \text{ tonnes} = 1.5 \times 1000 = 1500 \text{ kg}</math>  <math>1 \text{ kg} = \text{Nu } 40</math>  <math>1500 \text{ kg} = 1500 \times 40 = 60,000</math>  So, he got Nu 60,000</p>	1 mark 1 mark
Q5b	<p>Each car parking space covers an area of <math>6 \text{ m}^2</math>. What will be the length of 5 car parking space? [2]</p> 	<p>Area of each parking space is <math>6 \text{ m}^2</math>  <math>\text{Area} = l \times w</math>  <math>6 = l \times 3</math>  <math>6 = 2 \times 3</math>  So, L is 2 m</p> <p>The length of 5 car parking space = <math>2 \times 5 = 10 \text{ m}</math></p>	1 mark 1 mark

Q5c	<p>Represent <math>0.4 \times 0.6</math> on the grid and find the product. [1]</p> 	 <p><math>0.4 \times 0.6 = 0.24</math></p>	1 mark								
Q6a	<p>a) Bhutan imported commodities worth Nu 8.75 billion in 2024 from India. [2]</p> <ol style="list-style-type: none"> <li>Write the figures in standard form.</li> <li>Write it in expanded form.</li> </ol>	<p>Standard form- 8,750,000,000</p> <p>Expanded form- 8 billion + 7 hundred million + 5 ten million</p> <p>OR</p> $8 \times 1000,000,000 + 7 \times 100,000,000 + 5 \times 10,000,000$	1 mark 1 mark								
Q6b	<p>Which transformations are used to move Shape A to Shape B, Shape B to Shape C and Shape C to Shape D? [1.5]</p> 	<table border="1" data-bbox="822 1051 1240 1372"> <thead> <tr> <th>Shape</th> <th>Transformation</th> </tr> </thead> <tbody> <tr> <td>A to B</td> <td>Translation</td> </tr> <tr> <td>B to C</td> <td>Rotation</td> </tr> <tr> <td>C to D</td> <td>Reflection</td> </tr> </tbody> </table>	Shape	Transformation	A to B	Translation	B to C	Rotation	C to D	Reflection	0.5 mark 0.5 mark 0.5 mark
Shape	Transformation										
A to B	Translation										
B to C	Rotation										
C to D	Reflection										
Q6c	<p>Draw a triangle ABC, with AB = 5cm and <math>\angle A</math> and <math>\angle B</math> are <math>45^0</math>. [1.5]</p>	<p>Correct 5 cm line segment -----</p> <p>Correct <math>45^0</math> angle of the triangle -----</p>	0.5 mark 0.5 x 2 mark								

Q7a	<p>The shapes given are the six faces of a 3-D object. What is the name of the object? [1]</p> 	<p>It is Pentagonal Pyramid OR Pentagon based Pyramid</p>	1 mark
Q7b	<p>Tshering and Pema are preparing tea. Tshering uses 2 sugar cubes for 3 cups of water and Pema uses 4 sugar cubes for 6 cups of water. [2]</p> <p>i. Who do you think used the higher ratio of sugar cubes to cup of water?</p> <p>ii. If Tshering wants to prepare tea using 9 cups of water, how many sugar cubes will he require?</p>	<p>Ratio = Sugar : water Tshering- <math>2 : 3 = 4 : 6</math> (Equivalent) Pema- <math>4 : 6 = 2 : 3</math> (Simplify) Tshering and Pema has used equal ratio of sugar cube to cups of water.</p> <p><math>3 \text{ cups} = 2 \text{ sugar cubes}</math> <math>9 \text{ cups} = 3 \times 2 = 6</math> So, 6 cubes of sugar for 9 cups of water.</p>	<p>1 mark</p> <p>1 mark</p>
Q7c	<p>Two students volunteered to clean the classroom. Student A cleaned <math>\frac{1}{3}</math> and Student B cleaned <math>\frac{2}{5}</math> of the floor. Which student cleaned more part of the classroom? Show your work. [2]</p>	<p>Make common denominator to compare the fractions.</p> <p>Student A = <math>\frac{1}{3} \times \frac{5}{5} = \frac{5}{15}</math></p> <p>Student B = <math>\frac{2}{5} \times \frac{3}{3} = \frac{6}{15}</math></p> <p><math>\frac{5}{15} &gt; \frac{6}{15}</math></p> <p>Student B cleaned more part of the class room.</p> <p>OR</p> <p>They can also compare the two fraction by drawing.</p>	<p>1 mark</p> <p>1 mark</p>