



# INDIAN SCHOOL AL WADI AL KABIR

## Post Mid-Term Revision Paper (2023-24)

Class: VII

Sub: MATHEMATICS

### Instructions:

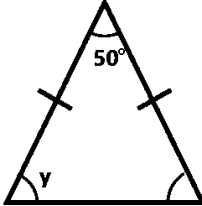
Section A: Multiple Choice Questions (Q.1 to Q.6)

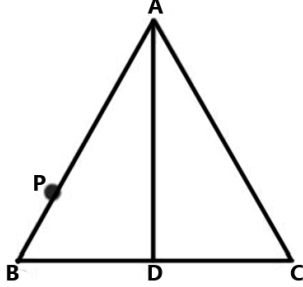
Section B: Source based questions (Q.7 to Q.11)

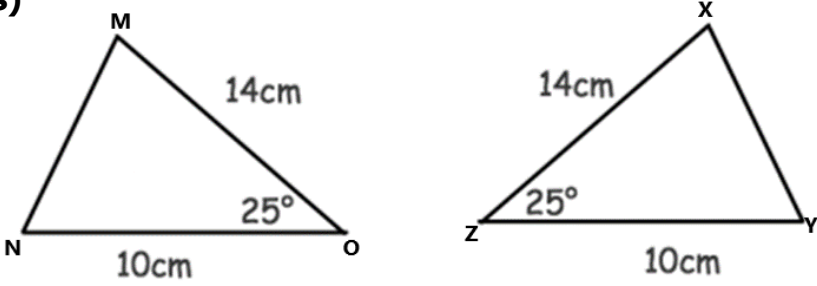
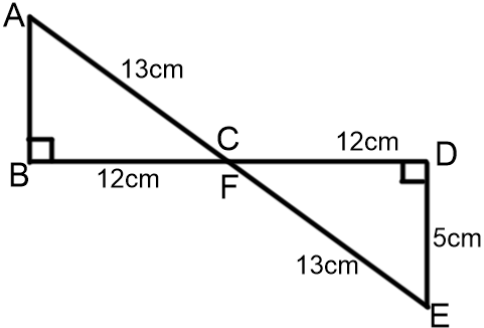
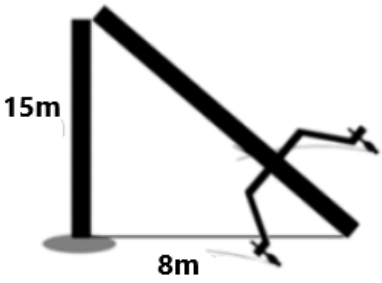
Section C: Long Answer Questions (Q.12 to Q.15)

Section D: Case study Questions (Q.16 to Q.17).

### Section A: Multiple Choice Question (Q.1 to Q.6) of 1 mark each

<b>1.</b>	In a triangle, if two interior angles are $63^\circ$ and $85^\circ$ , then the measure of exterior angle opposite to it is:						
<b>A</b>	$148^\circ$	<b>B</b>	$22^\circ$	<b>C</b>	$95^\circ$	<b>D</b>	$117^\circ$
<b>2.</b>	What will the value of 'x' if the given rational numbers are equal? $\frac{36}{x} = \frac{-6}{7}$						
<b>A</b>	42	<b>B</b>	49	<b>C</b>	-42	<b>D</b>	6
<b>3.</b>	Find the sum $\frac{-3}{7} + \frac{-4}{7} + \frac{15}{7}$						
<b>A</b>	$\frac{22}{7}$	<b>B</b>	$\frac{8}{7}$	<b>C</b>	$\frac{-8}{7}$	<b>D</b>	$\frac{-22}{7}$
<b>4.</b>	Find the value of y in the given figure. 						
<b>A</b>	$50^\circ$	<b>B</b>	$85^\circ$	<b>C</b>	$100^\circ$	<b>D</b>	$65^\circ$
<b>5.</b>	The sum of an exterior angle of a triangle and its adjacent angle is always equal to:						
<b>A</b>	$90^\circ$	<b>B</b>	$180^\circ$	<b>C</b>	$360^\circ$	<b>D</b>	$270^\circ$

<b>6.</b>	Find the additive inverse of $\frac{8}{-13}$						
<b>A</b>	$\frac{-8}{13}$	<b>B</b>	$\frac{13}{8}$	<b>C</b>	$\frac{8}{13}$	<b>D</b>	$\frac{-13}{8}$
<p><b>Section B:</b> Source based questions (Q.7 to Q.11) of <b>1</b> mark each</p> <p>In an equilateral triangle ABC, the length of AC = 10 cm and altitude AD = 6 cm. P is a point on AB.</p>							
							
<b>7.</b>	If the length of BP = x – 1 and the length of PA = x + 3, find the length of BP?						
<b>A</b>	1cm	<b>B</b>	4cm	<b>C</b>	6cm	<b>D</b>	3cm
<b>8.</b>	What is the length of the median on BC from vertex A?						
<b>A</b>	4cm	<b>B</b>	6cm	<b>C</b>	10cm	<b>D</b>	12cm
<b>9.</b>	In the right-angled triangle ADC, which of the following will be true?						
<b>A</b>	$AC^2 = AD^2 - CD^2$	<b>B</b>	$AD^2 = AC^2 - CD^2$	<b>C</b>	$CD^2 = AC^2 + AD^2$	<b>D</b>	$AD^2 = AC^2 + CD^2$
<b>10</b>	The lengths of two sides of a triangle are 7cm and 9cm. Between which two numbers can the length of the third side fall?						
<b>A</b>	5, 10	<b>B</b>	2, 17	<b>C</b>	5, 16	<b>D</b>	2, 16
<b>11.</b>	Which of the following will be the angles of a triangle?						
<b>A</b>	$30^\circ, 55^\circ, 90^\circ$	<b>B</b>	$35^\circ, 45^\circ, 90^\circ$	<b>C</b>	$26^\circ, 58^\circ, 96^\circ$	<b>D</b>	$55^\circ, 60^\circ, 25^\circ$
<p><b>Section C:</b> Long Answer Questions (Q12 to Q.15)</p>							
<b>12.</b>	Find the product of $\frac{-28}{81}$ and $\frac{27}{-14}$ . <b>(2 Marks)</b>						

<p><b>13.</b></p>	<p>Identify the congruent parts of given triangles and write the congruence relation in symbolic form. <b>(2 Marks)</b></p>	
<p><b>14.</b></p>	<p>Represent the following rational numbers on a number line: <math>\frac{3}{8}</math>, <math>\frac{7}{8}</math>, <math>1</math>, <math>\frac{-4}{8}</math> <b>(3 Marks)</b></p>	
<p><b>15.</b></p>	<p>Insert 4 rational numbers between <math>\frac{6}{7}</math> and <math>\frac{4}{5}</math> <b>(4 Marks)</b></p>	
<p><b>Section D:</b> Case study (Q.16 &amp; Q.17) of <b>4 Marks each</b></p>		
<p><b>16.</b></p>	<p><b>Case Study-1:</b> In the given figure <math>\triangle ABC \cong \triangle EDF</math>. Based on the information answer the following questions:</p> <ol style="list-style-type: none"> <li>State the rule that tells you that they are congruent. <b>(1m)</b></li> <li>If <math>\angle ACB = 41^\circ</math>, find the value of <math>\angle EFD</math>. <b>(1m)</b></li> <li>What is the length of side AB. <b>(1m)</b></li> <li>Identify the corresponding part of <math>\angle BAC</math> in <math>\triangle EDF</math>. <b>(1m)</b></li> </ol>	
<p><b>17.</b></p>	<p><b>Case Study-2:</b> Due to storm an electric pole is broken such that the top of the pole touches the ground. The pole is broken at a height of 15m from the ground and top of broken pole touches the ground at a distance of 8m from its base. Based on the given information answer the following questions:</p> <ol style="list-style-type: none"> <li>What is the height of broken part? <b>(2m)</b></li> <li>What was the original height of the pole? <b>(1m)</b></li> <li>The legs of a right-angled triangle are represented by <b>a</b> and <b>b</b>, and the hypotenuse is represented by <b>c</b>. Write the equation which represents the Pythagoras Theorem? <b>(1m)</b></li> </ol>	

## ANSWERS

<b>1.</b>	A. $148^\circ$	<b>2.</b>	C. $-42$	<b>3.</b>	B. $\frac{8}{7}$	<b>4.</b>	D. $65^\circ$
<b>5.</b>	B. $180^\circ$	<b>6.</b>	C. $\frac{8}{13}$	<b>7.</b>	D. 3cm	<b>8.</b>	B. 6cm
<b>9.</b>	B. $AD^2 = AC^2 - CD^2$	<b>10.</b>	D. 2, 16	<b>11.</b>	C. $26^\circ, 58^\circ, 96^\circ$	<b>12.</b>	$\frac{2}{3}$
<b>13.</b>	$NO = YZ$ $\angle NOM = \angle YZX$ $OM = ZX$ $\triangle NOM \cong \triangle YZX$	<b>15.</b>	$\frac{281}{350'}$ $\frac{282}{350'}, \frac{283}{350'}, \frac{284}{350'}$	<b>16.</b>	a) RHS b) $41^\circ$ c) 5cm d) $\angle DEF$	<b>17.</b>	I) 17m II) 32m III) $c^2 = a^2 + b^2$