|  |  |  | INDIAN SCHOOL AL WADI AL KABIR Class VII, Mathematics WORKSHEET (MCQ) - TRIANGLE AND ITS PROPERTIES |  |  |  |  |  |
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| Multiple Choice questions |  |  |  |  |  |  |  |  |
| Q.1. | In a triangle two angles are $68^{\circ}$ and $73^{\circ}$, The measure of third angle is |  |  |  |  |  |  |  |
|  | A | $41^{0}$ | B | $37^{0}$ | C | $39^{0}$ | D | $43^{0}$ |
| Q.2. | The exterior angle of a triangle is $116^{\circ}$ and one of its interior opposite angles is $63^{\circ}$. The measure of the other opposite angle is |  |  |  |  |  |  |  |
|  | A | $55^{0}$ | B | $53^{0}$ | C | $48^{0}$ | D | $52^{0}$ |
| Q.3. | Which of the following can be the measures of the sides of a triangle? |  |  |  |  |  |  |  |
|  | A | $\text { cm, } 17 \mathrm{~cm},$ | B | $\begin{gathered} 11 \mathrm{~cm}, 13 \mathrm{~cm}, \\ 24 \mathrm{~cm} \end{gathered}$ | C | $\begin{gathered} 18 \mathrm{~cm}, 21 \mathrm{~cm}, \\ 30 \mathrm{~cm} \end{gathered}$ | D | $\begin{gathered} 12 \mathrm{~cm}, 15 \mathrm{~cm}, \\ 31 \mathrm{~cm} \end{gathered}$ |
| Q.4. | In an isosceles right-angled triangle, the measure of three angles are |  |  |  |  |  |  |  |
|  | A | $90^{\circ}, 45^{0}, 45^{\circ}$ | B | 00,600,60 ${ }^{\circ}$ | C | 00,450,45 | D | $90^{0}, 60^{0}, 30^{0}$ |
| Q.5. | The three angles of a triangle are $x,\left(x+20^{\circ}\right)$, and ( $x+40^{\circ}$ ). The value of $x$ is |  |  |  |  |  |  |  |
|  | A | $35^{0}$ | B | $42^{0}$ | C | $50^{0}$ | D | $40^{0}$ |
| Q.6. |  | lue of $x$ and | giv | riangle |  |  |  |  |
|  | A | $100{ }^{0}, 40^{0}$ | B | $80^{\circ}, 50^{\circ}$ | C | $80^{\circ}, 100^{\circ}$ | D | $100^{0}, 50^{\circ}$ |


| Q.7. | In a right-angled triangle, base is 12 cm and hypotenuse is 15 cm , the length of altitude is |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | 7 cm | B | 8 cm | C | 11 cm | D | 9 cm |
| Q8. |  |  |  |  |  |  |  |  |
|  | A | $15^{0}$ | B | $75^{0}$ | C | $25^{0}$ | D | $35^{0}$ |
| Q9 | Which of the following cannot be the sides of a right triangle? |  |  |  |  |  |  |  |
|  | A | $\begin{gathered} 6 \mathrm{~cm}, 8 \mathrm{~cm}, \\ 10 \mathrm{~cm} \end{gathered}$ | B | $\begin{gathered} 2 \mathrm{~cm}, 2 \mathrm{~cm}, \\ 4 \mathrm{~cm} \end{gathered}$ | C | $\begin{gathered} 5 \mathrm{~cm}, 12 \mathrm{~cm} ; \\ 13 \mathrm{~cm} \end{gathered}$ | D | $\begin{gathered} 3 \mathrm{~cm} ; 4 \mathrm{~cm} \\ 5 \mathrm{~cm} \end{gathered}$ |
| Q10 | The exterior angle of a triangle is $72^{\circ}$ and the interior opposite angles are in the ratio $4: 5$, the angles are |  |  |  |  |  |  |  |
|  | A | $32^{0}, 40^{0}$ | B | $30^{0}, 42^{0}$ | C | 280,440 | D | $50^{0}, 22^{0}$ |
| SOURCE BASED QUESTION |  |  |  |  |  |  |  |  |
| Q11 | In $\triangle A B C$, if $A B=A C$ and $\angle A=100^{\circ}$ then $\angle C=-$--------------- |  |  |  |  |  |  |  |
| Q12 | A triangle has ----------------medians |  |  |  |  |  |  |  |
| Q13 | Two sides of a triangle are 9 cm and 17 cm , then the length of third side lies between ----and ------- |  |  |  |  |  |  |  |
| Q14 | In ---------------triangle the altitudes meet in the exterior of the triangle. |  |  |  |  |  |  |  |
| Q15 | The length and breadth of a rectangle are 12 cm and 5 cm respectively, then the length of its diagonal is $\qquad$ |  |  |  |  |  |  |  |

Q. 16 CASE STUDY:

Suresh having a garden near Delhi. In the garden there are many trees and flower plants. One day due to heavy rain and storm, one of the trees is broken as shown in figure. The height of the unbroken part is 15 m and the broken part of the tree has fallen at 20 m away from the base of the tree. Based on the information answer the following
I. What is the length of the broken part?
II. What is the original height of the tree?
III. Find the value of $x$ in the given figure
IV. Check whether $5 \mathrm{~cm}, 8 \mathrm{~cm}, 17 \mathrm{~cm}$ can be the
 sides of a right-angled triangle

## ANSWERS

| $\mathbf{1 .}$ | $\mathbf{C}$ | $\mathbf{2 .}$ | $\mathbf{B}$ | $\mathbf{3 .}$ | $\mathbf{C}$ | $\mathbf{4 .}$ | A |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{5 .}$ | $\mathbf{D}$ | $\mathbf{6 .}$ | $\mathbf{A}$ | $\mathbf{7 .}$ | $\mathbf{D}$ | $\mathbf{8 .}$ | A |
| 9. | $\mathbf{B}$ | $\mathbf{1 0 .}$ | $\mathbf{A}$ | $\mathbf{1 1 .}$ | $40^{\circ}$ | $\mathbf{1 2 .}$ | $\mathbf{3}$ |
| $\mathbf{1 3 .}$ | $8 \mathrm{~cm}, 26 \mathrm{~cm}$ | $\mathbf{1 4 .}$ | Obtuse angled <br> triangle | $\mathbf{1 5 .}$ | 13 cm | $\mathbf{1 6 .}$ | I. 25 m <br> II. 40 m <br> III. $x=8$ <br> V. |

