

## INDIAN SCHOOL AL WADI AL KABIR Class VII, Mathematics TRIANGLES & ITS PROPERTIES

WORKSHEET- (MCQ)

| Multiple Choice Questions |   |   |      |                     |    |                             |   |                        |  |  |
|---------------------------|---|---|------|---------------------|----|-----------------------------|---|------------------------|--|--|
| Q1.                       | Th  | The sum of any two sides of a possible triangle is: |      |                     |    |                             |   |                        |  |  |
|                           | A   | Less than the third side                            | В    | Equal to third side | С  | Greater than the third side | D | Half of the third side |  |  |
| Q2.                       | The sum of an exterior angle of a triangle and its adjacent angle is always equal to:   |   |      |                     |    |                             |   |                        |  |  |
|                           | A   | 90°   | В    | 180°                | С  | 360°                        | D | 270°                   |  |  |
| Q3.                       | In a right- angled triangle, the angles other than the right angle are:   |   |      |                     |    |                             |   |                        |  |  |
|                           | A   | Obtuse  | В    | Right               | С  | Acute                       | D | Straight               |  |  |
| Q4.                       | One of the acute angles of a right-angled triangle is 22.5°. Which is the other angle?  |   |      |                     |    |                             |   |                        |  |  |
|                           | A   | 65.7°   | В    | 62.5°               | С  | 72.5°                       | D | 67.5°                  |  |  |
| Q5.                       | Which two sides are equal in the given triangle. $65^{\circ}$   |   |      |                     |    |                             |   |                        |  |  |
|                           |   |   |      |                     |    | 65°                         |   |                        |  |  |
|                           | A   | AB, BC  | В    | BC, CA              | С  | CA, AB                      | D | No sides are equal     |  |  |
| Q6.                       | The hypotenuse of a right triangle is 17 cm long. If one of the remaining two sides is 8 cm in length, then the length of the other side is:                        |   |      |                     |    |                             |   |                        |  |  |
|                           | A   | 15cm  | В    | 13cm                | С  | 12cm                        | D | 9cm                    |  |  |
| Q7.                       | Which of the following can be the lengths of sides of a triangle?   |   |      |                     |    |                             |   |                        |  |  |
|                           | A   | 3cm, 4cm, 7cm                                       | В    | 2cm, 3cm, 7cm       | С  | 3cm, 4cm,5cm                | D | 3cm, 3cm, 7cm          |  |  |
| Q8.                       | The exterior angle of a triangle is of measure 150° and one of its interior opposite angles is of measure 85°. Find the measure of another interior opposite angle. |   |      |                     |    |                             |   |                        |  |  |
|                           | A   | 55°   | В    | 45°                 | С  | 35°                         | D | 65°                    |  |  |
| Q9.                       | W   | hich of the following                               | canr | ot be the angles of | at | riangle?                    |   |                        |  |  |
|                           | A   | 53°,57°, 70°  | В    | 65°,45°, 70°        | С  | 75°, 20°, 75°               | D | 60°,40°,80°            |  |  |

|              | Find the angle x in the given figure.   |   |  |   |                    |  |                          |                                       |  |  |
|--------------|---|---|--|---|--------------------|--|--------------------------|---------------------------------------|--|--|
|              | A   | 70°   | В  | 55°   | С                  | 20°  | D                        | 35°                                   |  |  |
|              |   |   |  | FILL IN THE                                 | BLA                | NKS  |                          |                                       |  |  |
| Q11.         | In a triangle, if two interior angles are 65° and 70°, then the measure of exterior angle opposite to it is |   |  |   |                    |  |                          |                                       |  |  |
| Q12.         | The   | e base angle of an i  | sosce  | les triangle is 65°,                        | the                | measure of the ve                          | ertical                  | angle is                              |  |  |
| Q13.         | The triangle in which two altitudes of a triangle are two of its sides is                                   |   |  |   |                    |  |                          |                                       |  |  |
| Q14.         |   | connects a  | verte  | ex of a triangle to t                       | he m               | nidpoint of its oppo                       | osite s                  | ide.                                  |  |  |
| Q15.         |   | a right-angled trian<br>third angle?                          | gle-sł   | naped park, an ang                          | jle m              | easure 35°. What                           | will b                   | e the measure of                      |  |  |
|              |   |   |  | •   |                    |  |                          | and 5cm (as shown                     |  |  |
|              | in fi<br>II is  |   | vo pai   | ts on one of its dia                        | agon               | als by Ritu. Part I                        | is give                  | en to Nila, and part                  |  |  |
| Q16.         | in fi<br>II is<br>follo   | igure) is cut into tw<br>s equally divided ar                 | vo par<br>nong                                 | ts on one of its dia<br>Nikhil and Nakul. E | agon               | als by Ritu. Part I<br>d on the given info | is give                  | en to Nila, and part<br>on answer the |  |  |
| Q16.         | in fi<br>II is<br>follo   | igure) is cut into two sequally divided and owing questions:  | vo par<br>nong                                 | ts on one of its dia<br>Nikhil and Nakul. E | agon               | als by Ritu. Part I<br>d on the given info | is give                  | en to Nila, and part<br>on answer the |  |  |
| Q16.<br>Q17. | in fi<br>II is<br>follo   | igure) is cut into two sequally divided and the length of the | vo par<br>nong<br>diago<br>B                   | ts on one of its dia<br>Nikhil and Nakul. E | agon<br>Based<br>L | als by Ritu. Part I<br>d on the given info | is give<br>prmation      | en to Nila, and part<br>on answer the |  |  |
|              | in fi<br>II is<br>follo   | igure) is cut into two sequally divided an owing questions:   | vo par<br>nong<br>diago<br>B                   | ts on one of its dia<br>Nikhil and Nakul. E | agon<br>Based<br>L | als by Ritu. Part I<br>d on the given info | is give<br>prmation      | en to Nila, and part<br>on answer the |  |  |
|              | in fi<br>II is<br>follo<br>Fino<br>A<br>Wha<br>A  | igure) is cut into two sequally divided an owing questions:   | vo par<br>nong<br>diago<br>diago<br>of ΔL<br>B | ts on one of its dia<br>Nikhil and Nakul. E | agon<br>Based<br>L | als by Ritu. Part I<br>d on the given info | is give<br>prmation<br>D | en to Nila, and part<br>on answer the |  |  |

| Q19. | W   | Which of the following is <b>NOT</b> true from the figure? |   |     |   |     |   |     |  |
|------|---|--|---|-----|---|-----|---|-----|--|
|      | <b>A</b> $LO^2 - LM^2 = MO^2$ <b>B</b> $LO^2 = LM^2 - MO^2$ <b>C</b> $LO^2 = LM^2 + MO^2$ <b>D</b> $LO^2 - OM^2 = LM^2$ |  |   |     |   |     |   |     |  |
| Q20. | If $\angle L = 50^{\circ}$ , find $\angle MOL$ .  |  |   |     |   |     |   |     |  |
|      | A   | 45°  | В | 70° | С | 40° | D | 30° |  |

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## ANSWERS

| 1.  | Greater than the third side | 2.  | B)180°  | 3.  | C)Acute                 | 4.  | D) 67.5° |
|-----|-----------------------------|-----|---------|-----|-------------------------|-----|----------|
| 5.  | B) BC, CA                   | 6.  | A) 15cm | 7.  | C) 3cm, 4cm,5cm         | 8.  | D)65°    |
| 9.  | C) 75°, 20°, 75°            | 10. | B) 55°  | 11. | 135°                    | 12. | 50°      |
| 13. | Right angled<br>triangle    | 14. | Median  | 15. | 55°                     | 16. | C)8cm    |
| 17. | D)24cm                      | 18. | B) 55°  | 19. | B) $LO^2 = LM^2 - MO^2$ | 20. | C) 40°   |