TOPIC –Properties of Parallelogram

Subject : Mathematics   **Class-9**   **F. M. 15**

WORKSHEET NO. - 15   **First term**   **Date: 06.03.2021**

Q.1) Choose the correct option: **(1x15=15)**

i) PQRS is a parallelogram whose sides PQ = 4x + y, QR = 13, RS = 21 and SP = 3x – 2y, then
   a) x = 5, y = 1   b) x = 1, y = 5   c) x = 2, y = 5   d) x = 5, y = 2

ii) PQRS is a rhombus whose one diagonal is PR. If $\angle RPQ$ = 35°, then $\angle RSP$ =
   a) 120°   b) 140°   c)110°   d)115°

iii) The diagonal of a rectangle makes an angle of 30° with one of its side. Then the acute angle between the diagonals is
   a)50°   b)45°   c) 60°   d)75°

iv)In a parallelogram ABCD , AB = 6cm and the length of the diagonals AC and BD are 9.8 cm and 8.2 cm. If the diagonals AC and BD intersect at O, then the perimeter of Δ AOB is
a) 12cm   b) 15 cm   c)10 cm   d) 8 cm

v)The length of the side of a rhombus is 10 cm and if the length of one diagonal is 6 cm, then the length of the other diagonal is
   a)10 cm   b)14 cm   c)16 cm   d)12 cm

vi) The perimeter of a parallelogram is 25cm. If the length of its greater side is is 7.5 cm, then the length of its smaller side will be
a) 5 cm   b)7 cm   c)8 cm   d)6 cm

vii)ABCD is a square. BOC is an equilateral triangle where the point O is outside the square. Then the value of $\angle AOD$ will be
a)60°   b) 45°   c) 30°   d)15°

viii)In the rectangle PQRS, the diagonals PR and QS intersect at O. If $\angle PQS$ = 50°, then the value of $\angle SOR$ is
   a) 60°   b) 40°   c)50°   d) 80°

ix) In a rhombus PQRS, the diagonals PR and QS intersect at O. If $\angle PRS$ = 50°, then $\angle OSR$ is _____
   a)64°   b) 40°   c) 44°   d)36°

x)In a parallelogram PQRS, the ratio of $\angle PQR$ and $\angle QRS$ is 1 : 5, then the value of $\angle QPS$ and $\angle PSR$ are ___ and ___
a)35°, 80°   b)100°,80°   c)45°, 100°   d)40°, 80°

xi)In a parallelogram ABCD, the point of intersection of diagonals AC and BD is O. If $\angle AOD$ = 120°, and $\angle BAC$ = 2$\angle ABD$, then the value of $\angle BCD$ is
   a)   80°   b)60°   c) 120°   d)110°

xii)QS is a diagonal of a parallelogram PQRS. If PQ > QR then $\angle QSR$ is _____ than $\angle PSQ$
   a)less   b) greater   c)more   d) none of these

xiii) ABCD is a rhombus. If $\angle ABD$ = 40°, then the value of $\angle BCD$ is _____
   a)   120°   b) 80°   c)60°   d)100°

xiv) If the measure of an angle of a parallelogram is half of its complementary angle, then the complementary angle is
a)60°   b) 120°   c) 75°   d) 30°

xv) PQT is a equilateral triangle on the side PQ of a rhombus PQRS. If $\angle QRS$ = 78°, then the value of $\angle PST$ is
   a)   84°   b)60°   c)21°   d)42°

-Chaitali Roy