



ST. LAWRENCE HIGH SCHOOL



A Jesuit Christian minority Institution

Subject: Trigonometry: measures of angle

Class-X Date: 1/03/2021

Topic: Conversion of angles in sexagesimal and circular measure

worksheet 12

1. Choose the correct alternative. $1 \times 15 = 15$
- a) Express $425''$ in degree, minute and second i) $7' 5''$ ii) $17' 5''$ iii) $7' 20''$ iv) none of these
- b) Express $892'$ in degree, minute and second i) $14^\circ 50'$ ii) $14^\circ 52'$ iii) $52' 14''$ iv) none of these
- c) The measures of 3 angles of a triangle are in the ratio 3: 4:5. Find out the greatest angle in circular measure.
i) $\frac{\pi}{4}$ radian ii) $\frac{\pi}{6}$ radian iii) $\frac{5\pi}{12}$ radian iv) none of these
- d) Express $\frac{\pi}{18}$ radian in degrees i) 20° ii) 10° iii) 25° iv) none of these
- e) Two angles in a triangle are 48° and $\frac{2\pi}{5}$ radian. Find the third angle in degree.
i) 75° ii) 80° iii) 100° iv) 60°
- f) The complementary angle of $63^\circ 35' 15''$ is _____ i) $26^\circ 24' 45''$ ii) $24^\circ 26' 45''$ iii) $45^\circ 24' 26''$ iv) none of these
- g) The measures of a quadrilateral are $\frac{\pi}{3}$, $\frac{5\pi}{6}$ and 90° . Find the circular measure of the fourth angle.
i) $\frac{\pi}{4}$ ii) $\frac{\pi}{3}$ iii) $\frac{2\pi}{5}$ iv) none of these
- h) Express $11^\circ 15'$ in radian.

i) $\pi/16$ radian ii) $\pi/6$ radian iii) $5\pi/6$ radian iv) none of these

i) If an arc of length 220 cm of a circle makes an angle 63° at the centre then find the radius of the circle.

i) 300 cm ii) 200 cm iii) 350 cm iv) none of these

j) The difference between 2 acute angles in a right angle triangle is $\pi/5$ radian. Find the measures of angles in radian.

i) $7\pi/20$ radian and $3\pi/20$ radian ii) $7\pi/15$ radian and $9\pi/20$ radian iii) $3\pi/20$ radian and $6\pi/17$ radian iv) none of these

k) The tip of the hour hand of a clock makes an angle x at the centre in 1 hour. What is the measure of x in circular system.

i) $\pi/3$ radian ii) $\pi/5$ radian iii) $\pi/6$ radian iv) none of these

l) Two angles of a triangle are 45° and $3\pi/8$ radian respectively, then the triangle is

i) scalene ii) equilateral iii) isosceles iv) isosceles right angle

m) Two angles of a triangle are $2\pi/9$ radian and 50° respectively, then the triangle is

i) scalene ii) equilateral iii) isosceles iv) scalene right angled

n) In a parallelogram ABCD if angle A = 70° then the value of angle C in circular measure is

i) $7\pi/18$ radian ii) $5\pi/18$ radian iii) $3\pi/18$ radian iv) none of these

o) The tip of the minute hand of a clock in 20 minutes makes an angle which is equal to

i) $\pi/3$ radian ii) $2\pi/3$ radian iii) $\pi/6$ radian iv) none of these

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