ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian minority Institution

Subject: Trigonometry: measures of angle Class-XDate:1/03/2021

Topic: Conversion of angles in sexagesimal and circular measure

Answer key of worksheet 12

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1. **Choose the correct alternative. 1x15=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^o 50 ' ii)$14^o52'$ 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) **Π/4 radian ii) Π/6 radian iii) 5Π/12 radian iv) none of these**

d)**Express Π/18 radian in degrees i) 20° ii) 10°iii) 25° iv) none of these**

e) **Two angles in a triangle are 48° and 2Π/5 radian . Find the third angle in degree.**

i) **75° ii) 80° iii) 100° iv)60°**

f) **The complementary angle of 63° 35'15" is _____i) 26°24' 45" ii) 24° 26' 45" iii) 45° 24' 26" iv) none of these**

g)**The measures of a quadrilateral are Π/3, 5Π/6 and 90°. Find the circular measure of the fourth angle.**

i)**Π/4 ii) Π/3 iii) 2Π/5 iv) none of these**

h)**Express 11° 15' in radian.**

i) Π/16 radian ii) Π/6 radian iii) 5Π/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 Π/5 radian. Find the measures of angles in radian.

i) 7Π/20 radian and 3Π/20 radian ii) 7Π/15 radian and 9Π/20 radian iii) 3Π/20 radian and 6Π/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) Π/3 radian ii) Π/5 radian iii) Π/6 radian iv) none of these

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

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

m)Two angles of a triangle are 2Π/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 angleC in circular measure is

i) 7Π/18 radian ii) 5Π/18 radian iii) 3Π/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) Π/3 radian ii) 2Π/3 radian iii) Π/6 radian iv) none of these

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