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ST. LAWRENCE HIGH SCHOOL

A Christian Jesuit minority Institution

Subject: Mathematics   Class: X   Date:15.04.2020

Answer key of Worksheet-8

Chapter- Trigonometric ratios of complementary angles
Topic - Trigonometric ratios of complementary angles

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1. **Choose the correct alternative.**   **1x15=15**
   a) Measure of Cosec(90° -Ө) is   Ans ii) secӨ

   b)$\dfrac{\cos 53°}{\sin 37°}$ =_____ Ans i)1

   c)$\sin^2 21° + \sin^2 69°$ = _____ Ans   iii) 1

   d)If tan2A = cot (A-18°) where 2A is a positive acute angle ,then measure of A is
     Ans i) 36°

    e) cos 55 ° cos 35° - sin55° sin 35° =_____ Ans ii) 0

   f)If A and B are 2 complementary angles (sin A + sinB)^2 =_____
     Ans iii) 1+ 2sinA sin B

   g)$\cos^2 75°$- $\sin^2 15°$ = _____ Ans i) 0

   h) $\sec^2 12°$ - $\dfrac{1}{\tan^2 78°}$ = _____ Ans iii) 1

   i)cot12° cot38° cot 52° cot 78° cot 60° =_____ Ans   ii) $1/\sqrt{3}$

   j) ($\dfrac{\tan 35°}{\cot 55°}$ + $\dfrac{\cot 78°}{\tan 12°}$) =_____ Ans i) 2

   k) ABC is a triangle . Sin($\dfrac{B+C}{2}$) = _____Ans ii)cos A/2

    l) If A+B= 90° and tan A =3/4 , then value of cot B is   ans iii) ¾

    m){cos (40°+ Ө) - sin (50°- Ө) } = _____ Ans i) 0

n) If $\sin 10\Theta = \cos 8\Theta$ and 10Θ is a positive acute angle then value of $\tan 9\Theta$ is
Ans   iii) 1

o) $(\tan 1° \times \tan 2° \times \tan 3° \times ....\times \tan 89°) =$_____Ans iii) 1

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