CLASS 9 MATHS ASSIGNMENT

CHAPTER 18 TRIGONOMETRICAL RATIOS OF STANDARD ANGLES Continuation....

TRIGONOMETRICAL RATIOS OF COMPLEMENTARY ANGLES

$$sin(90 - \theta) = cos\theta \qquad cos(90 - \theta) = sin\theta$$

$$tan(90 - \theta) = cot\theta \qquad cot(90 - \theta) = tan\theta$$

$$sec(90 - \theta) = cosec\theta \qquad cosec(90 - \theta) = sec\theta$$

Exercise 18.2

1 iii) $\dfrac{cosec17°30'}{sec72°30'} \Rightarrow = \dfrac{cosec(90-72°30')}{sec72°30'} \Rightarrow = \dfrac{sec72°30'}{sec72°30'} \Rightarrow =1$

5 ii) $\dfrac{sec29°}{cosec61°} + 2cot8°cot17°cot45°cot73°cot82° - 3(sin^2 38° + sin^2 52°)$

$\Rightarrow \dfrac{sec(90°-61°)}{cosec61°} + 2cot(90° - 82°)cot(90° - 73°)cot45°cot73°cot82° - 3(sin^2(90° - 52°) + sin^2 52°)$

$\Rightarrow \dfrac{cosec\,61°)}{cosec61°} + 2tan82°tan73°cot73°cot82° - 3(cos^2 52° + sin^2 52°)$

$\Rightarrow 1+2.1.1.1-3.1$

$\Rightarrow 0$

HOME WORK : Solve, left over questions from1 to 13, from the exercise.