LDJS3Y

Multiple choice questions

1. The value of $\sin^2\theta + \dfrac{1}{1+\tan^2\theta}$ is equal to

   (1) $\tan^2\theta$ (2) 1 (3) $\cot^2\theta$ (4) 0

2. $\tan\theta\operatorname{cosec}^2\theta - \tan\theta$ is equal to

   (1) $\sec\theta$ (2) $\cot^2\theta$ (3) $\sin\theta$ (4) $\cot\theta$

3. If $(\sin\alpha + \operatorname{cosec}\alpha)^2 + (\cos\alpha + \sec\alpha)^2 = k + \tan^2\alpha + \cot^2\alpha$, then the value of k is equal to

   (1) 9 (2) 7 (3) 5 (4) 3