ASSIGNMENT

MATHEMATICS(Class XII)

1. If $f : R \rightarrow R$, $g : R \rightarrow R$ and $h : R \rightarrow R$ is such that $f(x) = x^2$, $g(x) = \tan x$ and $h(x) = \log x$, then the value of $[ho(gof)](x)$, if $x = \pi\sqrt{2}$ will be

2. If $\sin^{-1}(x^2 - 7x + 12) = n\pi$, $\forall$ $n \in I$, then $x =$

3. Total number of possible matrices of order 3×3 with each entry 2 or 0 is

4. The value of c in Mean value theorem for the function $f(x) = x(x - 2)$, $x \in [1, 2]$ is

5. Evaluate: $\int dx x^2$

6. If $AB \times AC = 2\hat{i} - 4\hat{j} + 4\hat{k}$, then the are of $\triangle ABC$ is

7. The probability of a man hitting a target is $\frac{1}{4}$. How many times must he fire so that the probability of his hitting the target at least once is greater than $\frac{2}{3}$?

8. A die is thrown and card is selected a random from a deck of 52 playing cards. The probability of gettingan even number on the die and a spade card is

9. The maximum value of $f = 4x + 3y$ subject to constraints $x \geq 0$, $y \geq 0$, $2x + 3y \leq 18$; $x + y \geq 10$ is

10. The angle between the planes $r \cdot (\hat{i} + 2\hat{j} + \hat{k}) = 4$ and $r(-\hat{i} + \hat{j} + 2\hat{k}) = 9$ is