

Calculus: Inclass Homework 4

March 27th, 2008

1. Find the plane that passes through the line of intersection of $x - z = 1$ and $y + 2z = 3$ and is perpendicular to the plane $x + y - 2z = 1$.

2. Find the sum of the following series

$$\sum_{n=1}^{\infty} (-1)^{n+1} \frac{n}{2^n} \binom{1/2}{n}.$$

Hint: First find the sum of the related series $\sum_{n=1}^{\infty} \binom{1/2}{n} (-1)^n x^n$.