

Calculus II Week6 HW-extraQuestions Release

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Supplemental Homework:

第12章： 第5题、第9题、第17题、第22题、第24题

5. Find the symmetry point of the point $(1, -2, 3)$ with respect to the plane $x + 4y + z - 14 = 0$.

9. Suppose the plane M passes through the origin and $(6, -3, 2)$ and is perpendicular to the plane $4x - y + 2z - 8 = 0$. Find M .

17. Let $\overrightarrow{AB} = (-3, 0, 4)$ and $\overrightarrow{AC} = (5, -2, -15)$. Find a unit vector in the direction of the bisector of $\angle BAC$.

22. Determine λ such that the following two lines intersect and find the position of the intersection.

$$l_1 : \frac{2x - 2}{3} = -(y + 1) = \frac{z - 2}{2};$$

$$l_2 : x = \frac{4y + 1}{-4} = \frac{z + 2}{\lambda}$$

24. The ellipsoid S_1 is generated by revolving $\frac{x^2}{4} + \frac{y^2}{3} = 1$ about the x-axis, and the cone S_2 is generated by revolving the tangent line passing through $(4, 0)$ of $\frac{x^2}{4} + \frac{y^2}{3} = 1$ about the x-axis. Find the equation of S_1 and S_2 , and compute the volume of the solid enclosed by S_1 and S_2 .

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有志于完成相关补充习题的答案制作，想参与协助或者手上有相关资源（整理好的手稿，电子扫描版等），可与我联系

Contact me with QQ/email: 1465101364; 12310903@mail.sustech.edu.cn

Issue and explore more at

https://github.com/LIUBINfighter/Open_Notes_SUSTech