Assignment 7

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Cs430

1.

$A = [1, 1, 1]^T$, $B = [5, 1, 1]^T$, $C = [2, 3, -2]^T$

$U = B - A = [4, 0, 0]^T$, $V = C - A = [1, 2, -3]^T$

$N_x = U_y V_z - U_z V_y = 0.-3 - 0.2 = 0$

$N_y = U_z V_x - U_x V_z = 0.1 - 4.-3 = 12$

$N_z = U_x V_y - U_y V_x = 4.2 - 0.2 = 8$

$N = [0, 12, 8]^T$

$|N| = (0 + 144 + 64)^{1/2} = 14.42$

$n = [0, 12/14.42, 8/14.42]^T$