

Find the flux of  $\vec{F} = \langle (3x-4y)^2, \sin(z-2y), \sin(x+y) \rangle$  through the boundary  $\partial T$  of the tetrahedron  $T$  with vertices  $A = (1, 1, 1)$ ,  $B = (4, 1, 4)$ ,  $C = (1, 2, 3)$ ,  $D = (3, 2, 1)$  58