

6-3.7

$$F = 2i - 3j + k$$

(a) $G = 1i + 5j + 2k$

$$T = G \times F = \begin{vmatrix} i & j & k \\ 1 & 5 & 2 \\ 2 & -3 & 1 \end{vmatrix} = (5+6)i - (1-4)j + (-3-10)k$$

$$T = 11i + 3j - 13k$$

(b) about y axis $\pi = j$

$$|\pi_y| = \pi \cdot j = 3$$

$$\pi_y = 3j$$