- $A = (1, 3, 2)$
- $B = (3, -1, 6)$
- $C = (5, 2, 0)$
- $D = (3, 6, -4)$

$a = \overrightarrow{AB} \wedge b = \overrightarrow{AC} \Rightarrow a = (2, -4, 4) \wedge b = (4, -1, -2)$
$n = a \times b = det(\begin{vmatrix} i & j & k \\ 2 & -4 & 4 \\ 4 & -1 & -2 \end{vmatrix}) =$
$12\widehat{i} + 20\widehat{j} + 14\widehat{k} \overset{\times\frac{1}{2}}{\equiv} 6\widehat{i} + 10\widehat{j} + 7\widehat{k}$
$\Pi = 6 \cdot (x - 1) + 10 \cdot (y - 3) + 7 \cdot (z - 2) =$
$6x - 6 + 10y - 30 + 7z - 14 =$
$6x + 10y + 7z - 50 = 0 \equiv$
$6x + 10y + 7z = 50 \Rightarrow$
$\Pi : 6x + 10y + 7z = 50$
$QvQ\ A, B, C, D \in \Pi$

- $\Pi : 6(1) + 10(3) + 7(2) \overset{?}{=} 50$ ✓
- $\Pi : 6(3) + 10(-1) + 7(6) \overset{?}{=} 50$ ✓
- $\Pi : 6(5) + 10(2) + 7(0) \overset{?}{=} 50$ ✓
- $\Pi : 6(3) + 10(6) + 7(-4) \overset{?}{=} 50$ ✓