

$$16. a = (1, -2, 3); b = (x, 0, -1)$$

dot prod.  $a \cdot b = a_1 b_1 + a_2 b_2 + a_3 b_3$

$$\Rightarrow (1 \cdot x) + (-2 \cdot 0) + (3 \cdot -1)$$

$$\Rightarrow x + 0 - 3$$

$$\boxed{= 1}$$