

3a, $C = (2, 5, 0)$ $d = (4, 3, 0)$

$C \cdot d = (2 \times 4), (5 \times 3), (0 \times 0)$

$C \cdot d = \cancel{8} + 15, 0 \rightarrow 8 + 15 = \underline{23}$

3b, $|C| = \sqrt{2^2 + 5^2} = \sqrt{29} = \underline{5.385}$

$|d| = \sqrt{4^2 + 3^2} = \sqrt{25} = \underline{5}$

3c, $C = 2/5.385, 5/5.385, 0/5.385$

3d, $\phi = \cos^{-1}\left(\frac{23}{10.385}\right)$