

For two non-parallel planes $r \bullet n_1 = k_1$ and $r \bullet n_2 = k_2$, $n_1 \times n_2$ would yield the direction vector of the line of intersection between these two planes. However, some students will only feel completely assured if they are allowed a visual appreciation of things. So provided below is a diagram:

$n_1 \times n_2$ (parallel to direction vector of line of intersection- in purple; note)

also this construct is directly “above” the actual line of intersection)

