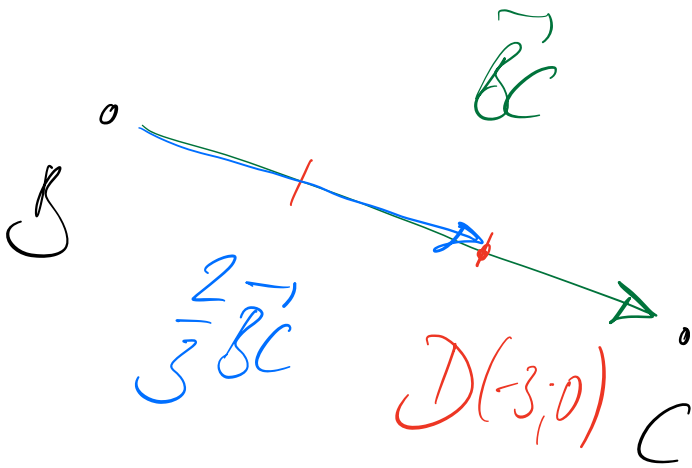


$$C = A + \frac{1}{4} \vec{AB} = (3; 2) + \frac{1}{4}(-8; 4) = (3; 2) + (-2; 1)$$

$$\vec{AB} = \begin{pmatrix} -5-3 \\ 6-2 \end{pmatrix} = \begin{pmatrix} -8 \\ 4 \end{pmatrix} = (1; 3)$$



$$\vec{BC} = \begin{pmatrix} -2-(-5) \\ -3-6 \end{pmatrix} = \begin{pmatrix} 3 \\ -9 \end{pmatrix}$$

$$D = B + \frac{2}{3} \vec{BC} = (-5; 6) + \frac{2}{3}(3; -9)$$

$$= (-5; 6) + (2; -6) = (-3; 0)$$