Zadatak 3. Ako su $A(1,-1)$, $B(3,2)$ i $C(-2,3)$ tri uzastopna vrha paralelograma $ABCD$, odredi koordinate četvrtog vrha D.

Rješenje.

$$A(1,-1),$$
$$B(3,2),$$
$$C(-2,3),$$
$$D(x,y),$$

$$\overrightarrow{AB} = \overrightarrow{DC} \quad \text{(paralelogram)}$$
$$(3-1)\vec{\imath} + (2+1)\vec{\jmath} = (-2-x)\vec{\imath} + (3-y)\vec{\jmath}$$
$$2\vec{\imath} + 3\vec{\jmath} = (-2-x)\vec{\imath} + (3-y)\vec{\jmath}$$
$$2 = -2 - x \implies x = -4$$
$$3 = 3 - y \implies y = 0$$
$$\implies D(-4,0)$$

$D(-4,0)$.