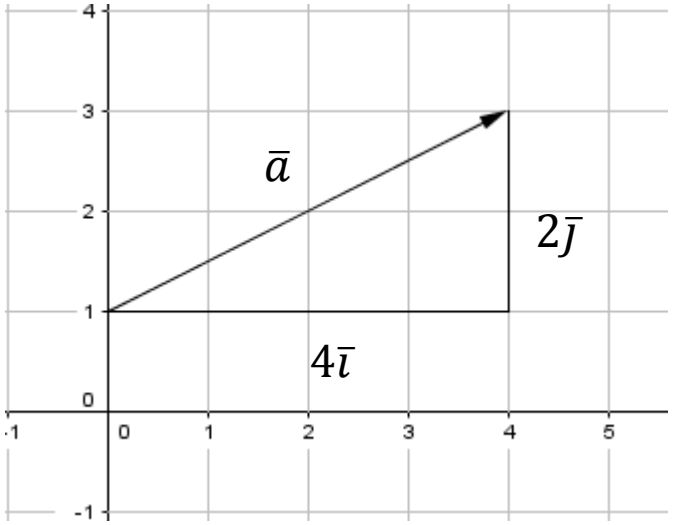
xy-taso

- Jokainen xy-tason vektori $\bar{a}$ voidaan ilmaista muodossa $\bar{a} = x\bar{\imath} + y\bar{\jmath}$
- Vektorin $\bar{a} = x\bar{\imath} + y\bar{\jmath}$ pituus on

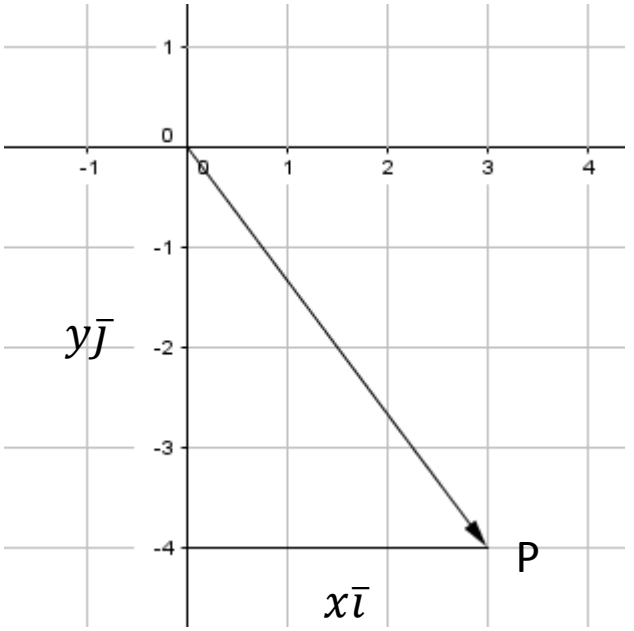
$$|\bar{a}| = \sqrt{x^2 + y^2}$$



$$|\bar{a}|^2 = 4^2 + 2^2 = 20$$
$$|\bar{a}| = \sqrt{20}$$

xy-taso

- Pisteen (x, y) paikkavektori on
$$\overline{OP} = x\bar{\imath} + y\bar{\jmath}$$
- Esim. Jos $A = (-14, 7)$, niin $\overline{OA} = -14\bar{\imath} + 7\bar{\jmath}$
- Jos $\overline{OC} = 4\bar{\imath} + 2\bar{\jmath}$, niin $C = (4, 2)$.



xy-taso

- Vektori $\overline{AB}$
  - Jos $A = (x_1, y_1)$ ja $B = (x_2, y_2)$, niin
    $$\overline{AB} = (x_2 - x_1)\bar{\imath} + (y_2 - y_1)\bar{\jmath}$$
  - Lisäksi
    $$|\overline{AB}| = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$