

3 K-Nearest Neighbours

$$\|P - A\| = \|(17; 1; 4)\| = \sqrt{306}$$

$$\|P - B\| = \|(10; 2; 3)\| = \sqrt{113}$$

$$\|P - C\| = \|(13; 1; 3)\| = \sqrt{179}$$

$$\|P - D\| = \|(11; -1; 0)\| = \sqrt{122}$$

$$\|P - E\| = \|(14; -1; 1)\| = \sqrt{198}$$

$$\|P - F\| = \|(16; -1; 1)\| = \sqrt{258}$$

$\implies B$ is nearest neighbor and P is therefore in class 1.