5. Find the distance $d(P1, P2)$ between the points $P1 = (-1, -2)$ and $P2 = (-3, 4)$

$\sqrt{41}$

$\sqrt{42}$

$2\sqrt{10}$

$\sqrt{43}$

Solution

The distance $= \sqrt{(4--2)^2 + (-3--1)^2}$

The distance $= \sqrt{(6)^2 + (-2)^2}$

$= \sqrt{36+4}$

$= 2\sqrt{10}$