12	5	What is the perpendicular distance of the point (2, −1) from the line $y = 3x + 1$?	1

(A) $\dfrac{6}{\sqrt{10}}$ (B) $\dfrac{6}{\sqrt{5}}$ (C) $\dfrac{8}{\sqrt{10}}$ (D) $\dfrac{8}{\sqrt{5}}$

C

State Mean: **0.71**

Use (2, −1), $3x - y + 1 = 0$,

$$d = \left| \frac{ax_1 + by_1 + c}{\sqrt{a^2 + b^2}} \right|$$

$$= \left| \frac{3(2) - 1(-1) + 1}{\sqrt{3^2 + (-1)^2}} \right|$$

$$= \left| \frac{8}{\sqrt{10}} \right|$$

$$= \frac{8}{\sqrt{10}}$$