

$$2. \int_C \underbrace{(y-x)}_M dx + \underbrace{(2x-y)}_N dy$$

$$\iint_R (2-1)$$

$$\iint_R 1$$

AREA
OF
ELLIPSE

$$= \pi ab$$

$$= \pi (5 \times 3)$$

$$= \boxed{15\pi}$$

$$x = 5 \cos A, \quad y = 3 \sin A$$

$$\frac{x}{5} = \cos A, \quad \frac{y}{3} = \sin A$$

$$\frac{x^2}{25} = \cos^2 A, \quad \frac{y^2}{9} = \sin^2 A$$

$$\frac{x^2}{25} + \frac{y^2}{9} = \cos^2 A + \sin^2 A$$

$$\frac{x^2}{25} + \frac{y^2}{9} = 1$$

