

$$\begin{aligned} z &= f(x, y) = 10 - 2x - 5y \text{ and } D \text{ is the disk } x^2 + y^2 \leq 16, \text{ so by formula} \\ A(S) &= \iint_D \sqrt{1 + (-2)^2 + (-5)^2} dA = \sqrt{30} \iint_D dA = \sqrt{30} A(D) \\ &= \sqrt{30} (\pi \cdot 4^2) = 16\sqrt{30}\pi. \end{aligned}$$