$$\cdot \int 1\, dx \qquad\qquad \int k\, dx = k \cdot x + 4$$

$$\int 1 \cdot dx = \int dx = 1 \cdot x + 4 = x + 4$$

$$\frac{d}{dx}(x+4) = \frac{d}{dx}(x) + \frac{d}{dx}(4) = 1 + 0 = 1$$