Here are four easy integrals.

1 | **Single Value Function**

$$f_1 : \mathbb{R}^2 \to \mathbb{R}^1 \tag{1}$$
$$f_1(x, y) = 0 \tag{2}$$

What's the area of this function?

We can take the area of the shape, essentially by taking the volume by height 1: that is, for a rectangle of l, w, h, its top-area is simply $l \cdot w$, also known as $lw \cdot 1$. Therefore:

$$\int_0^7 \int_0^5 1 dx \; dy = 35 \tag{3}$$

The area of the shape is therefore 35.

2 | **Area of the Plane**