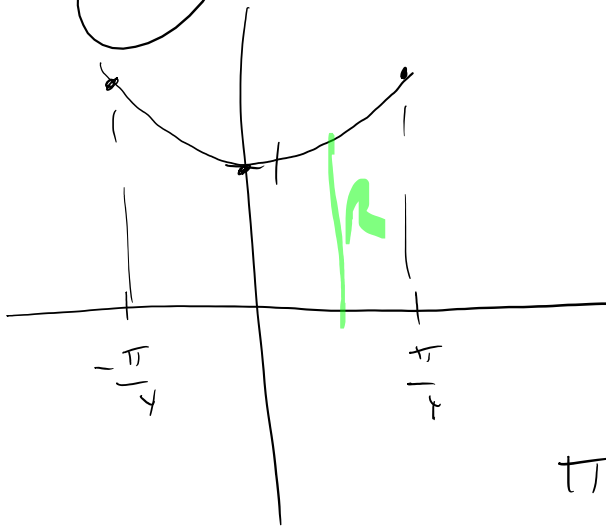


(17)  $y = \sec x$   $y = 0$   $x = -\pi/4$   $x = \pi/4$



$$r = \sec x$$
$$\pi \int_{-\pi/4}^{\pi/4} \sec^2 x \, dx$$

$$\pi \tan x \Big|_{-\pi/4}^{\pi/4}$$

$$\pi (\tan \pi/4 - \tan -\pi/4) = \pi (1 - -1)$$
$$= 2\pi$$

(16)  $y = \frac{1}{x}$        $y = \frac{5}{2} - x$

$2x \left( \frac{1}{x} = \frac{5}{2} - x \right)$

$2 = 5x - 2x^2$

$2x^2 - 5x + 2 = 0$

$(2x - 1)(x - 2) = 0$

$x = \frac{1}{2}, 2$



$r = \frac{5}{2} - x$

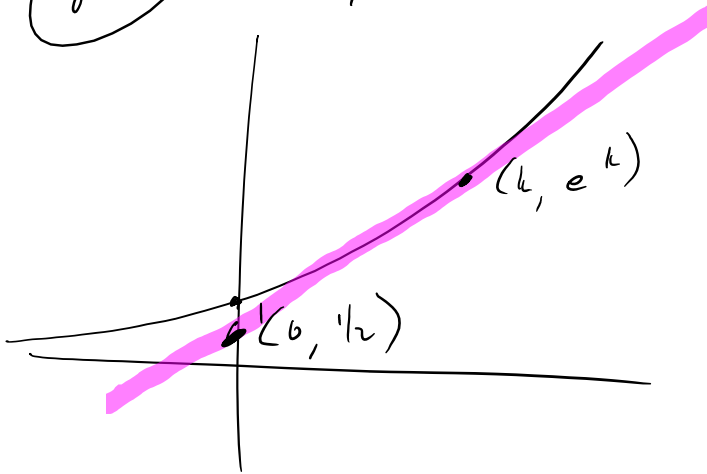
$r = \frac{1}{x}$

$\pi \int_{\frac{1}{2}}^2 \left( \frac{5}{2} - x \right)^2 - \left( \frac{1}{x} \right)^2 dx$

(86)

$$y = e^x$$

$$(k, e^k)$$



$$y - \frac{1}{2} = e^k (x - 0)$$

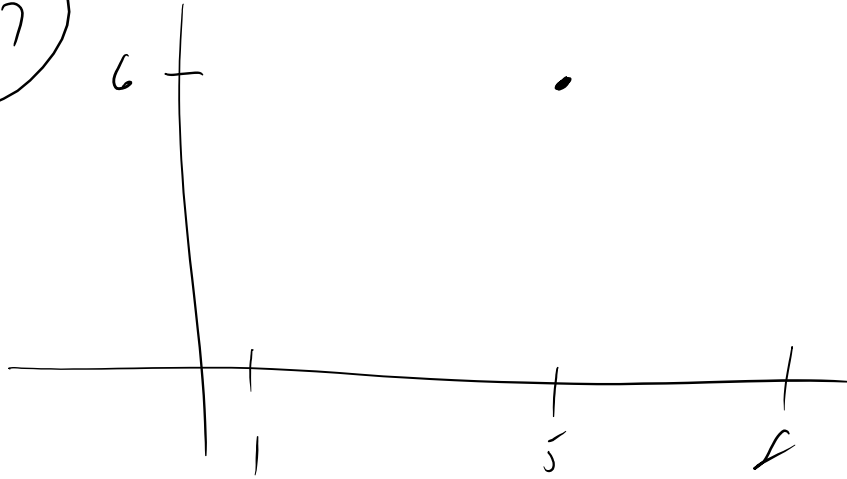
$$e^k - \frac{1}{2} = e^k (k - 0)$$

$$e^k - \frac{1}{2} = e^k \cdot k$$

$$e^k - e^k \cdot k - \frac{1}{2} = 0$$

(B)

87



C