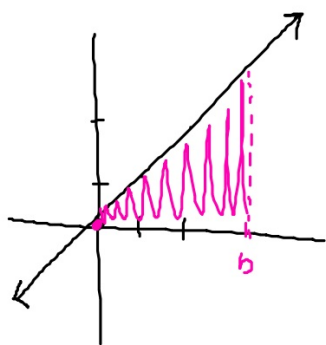


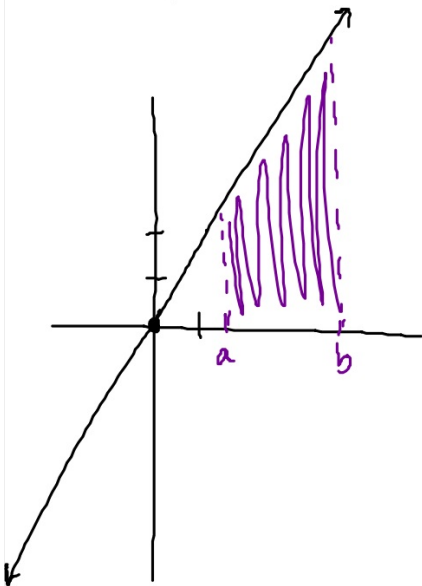
#23 | $\int_0^b x dx \quad b > 0$



$$\int_0^b x dx = \frac{1}{2}(b)(b) = \frac{1}{2}b^2$$

#25] $\int_a^b 2s \, ds$

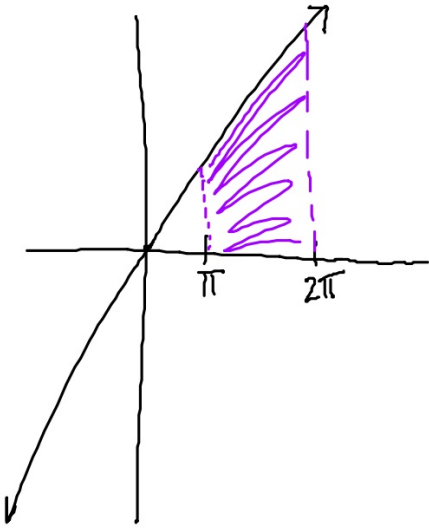
$$0 < a < b$$



$$\begin{aligned} \int_a^b 2s \, ds &= \frac{1}{2}(b-a)(2a+2b) \\ &= (b-a)(a+b) \\ &= ab + b^2 - a^2 - ab \\ &= b^2 - a^2 \end{aligned}$$

#21

$$\int_{\pi}^{2\pi} \theta \, d\theta$$

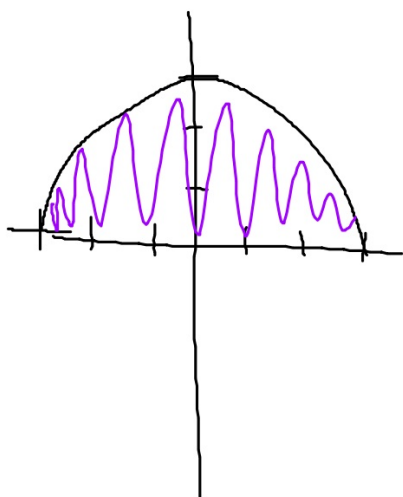


$$\frac{1}{2}(2\pi - \pi)(\pi + 2\pi)$$

$$\frac{1}{2}(\pi)(3\pi)$$

$$\frac{3\pi^2}{2}$$

#15] $\int_{-3}^3 \sqrt{9-x^2} dx$



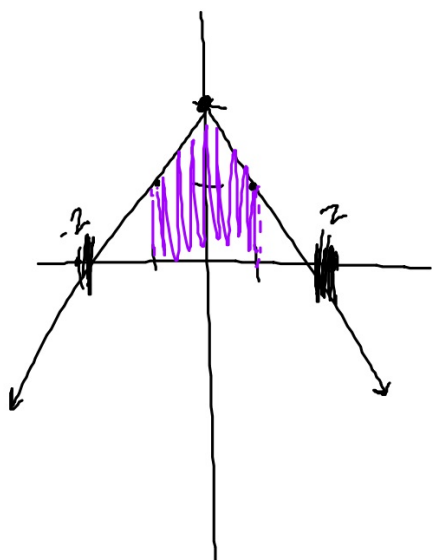
$$\frac{1}{2}\pi(3)^2$$

$$\frac{9\pi}{2}$$

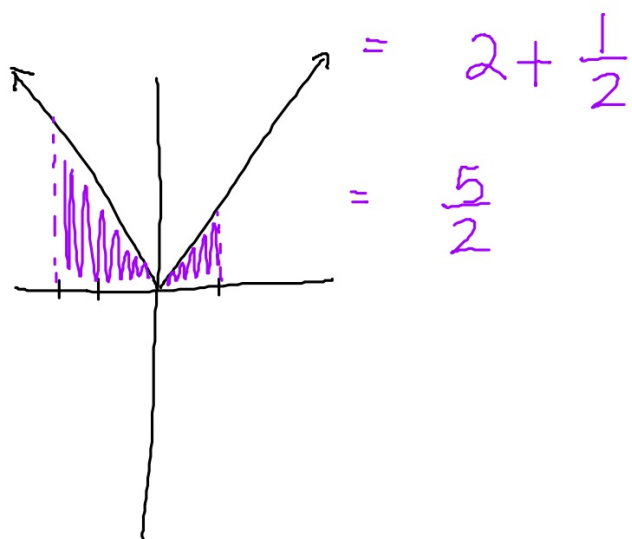
#19 $\int_{-1}^1 (2-|x|) dx$

$$\frac{h}{2}(b_1+b_2)$$

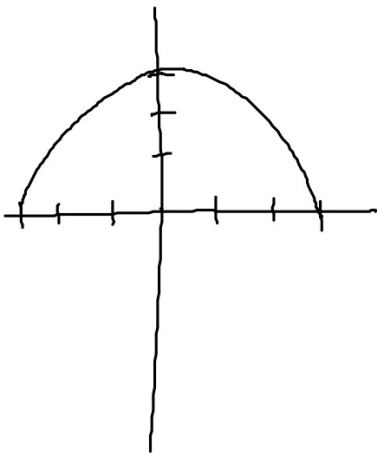
\swarrow $2 \left[\frac{1}{2}(2+1) \right] = 2 \left(\frac{3}{2} \right) = \boxed{3}$



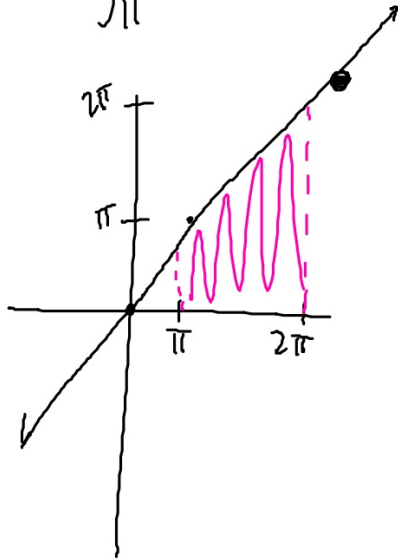
$$\#17 \int_{-2}^1 |x| dx = \frac{1}{2}(2)(2) + \frac{1}{2}(1)(1)$$



$$\underline{\#15} \int_{-3}^3 \sqrt{9-x^2} dx = \frac{1}{2} \pi (3)^2 = \frac{9\pi}{2}$$



#211 $\int_{\pi}^{2\pi} \theta d\theta$

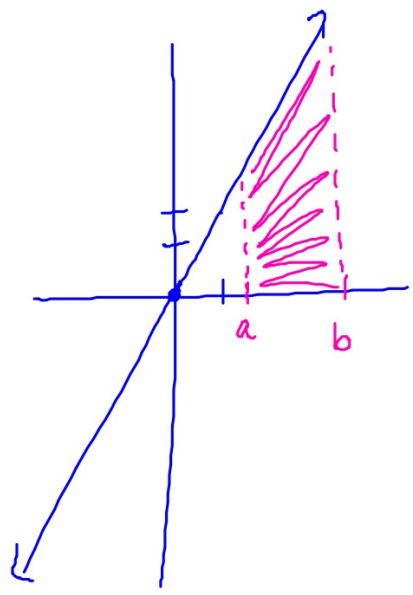


$$\frac{\pi}{2}(\pi + 2\pi) =$$

$$\frac{\pi}{2}(3\pi) = \frac{3\pi^2}{2}$$

#25] $\int_a^b 2s \, ds$

$0 < a < b$

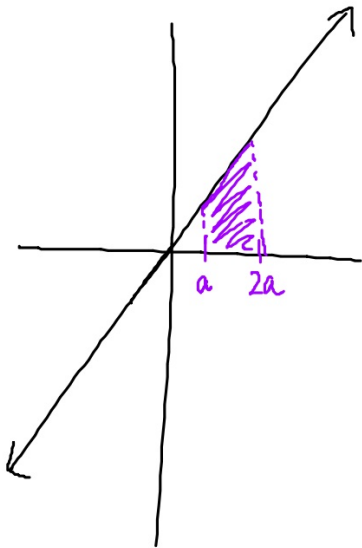


$\frac{1}{2}(b-a)(2a+2b)$

$(b-a)(a+b)$

$b^2 - a^2$

#27 $\int_a^{2a} x \, dx$ $a > 0$



$$\frac{a}{2}(a+2a)$$

$$\frac{a}{2}(3a)$$

$$\frac{3a^2}{2}$$