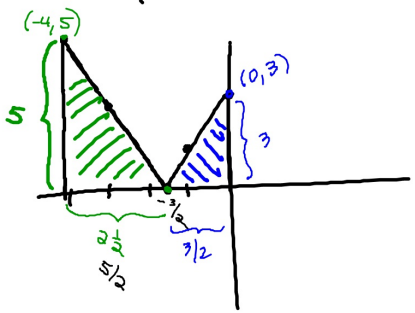
Evaluate using Geometry

① $\int_{-4}^{0} |2x+3|\,dx$



Find the zero: $2x+3=0$, $x=-3/2$

$A_\Delta + A_\Delta$

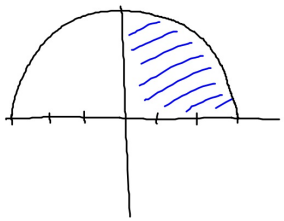
$\frac{1}{2}\left(\frac{5}{2}\right)(5) + \frac{1}{2}\left(\frac{3}{2}\right)(3)$

$= \frac{25}{4} + \frac{9}{4}$

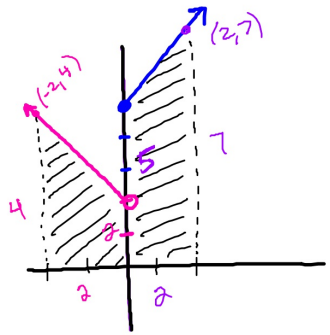
$= \frac{34}{4}$

$= \boxed{\frac{17}{2}}$

② $\int_{0}^{3} \sqrt{9-x^2}\,dx = \frac{1}{4}\pi(3)^2 = \boxed{\frac{9\pi}{4}}$



③ $f(x) = \begin{cases} -x+2 & x<0 \\ x+5 & x\geq 0 \end{cases}$ Find $\int_{-2}^{2} f(x)\,dx$



$\frac{1}{2}(2)(4+2) + \frac{1}{2}(2)(5+7)$

$6 + 12$

$\boxed{18}$