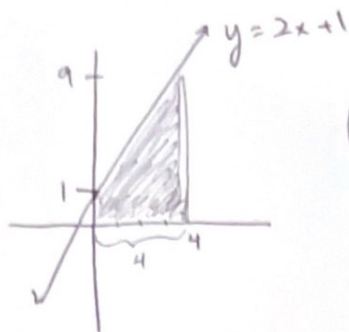
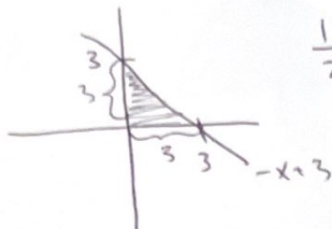


$$1. \int_0^4 2x+1 \, dx$$



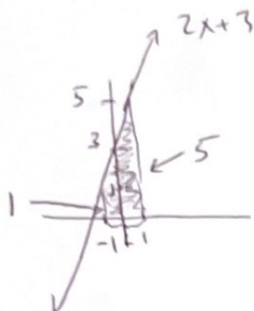
$$\left(\frac{1+9}{2}\right)(4) = \boxed{20}$$

$$2. \int_0^3 -x+3 \, dx$$



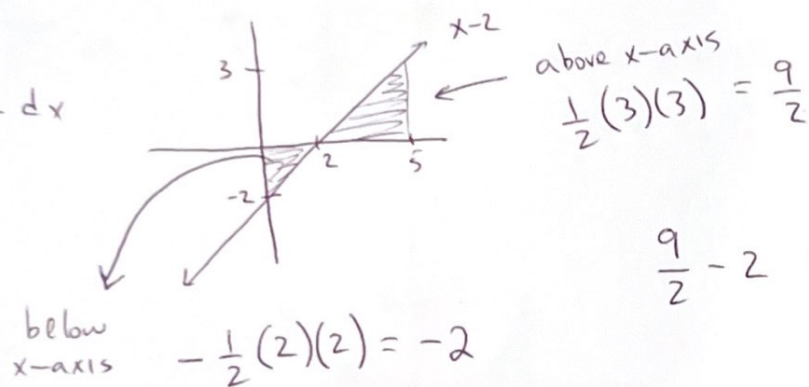
$$\frac{1}{2}(3)(3) = \boxed{\frac{9}{2}}$$

$$3. \int_{-1}^1 2x+3 \, dx$$



$$\left(\frac{1+5}{2}\right)(2) = \boxed{6}$$

$$4. \int_0^5 x-2 \, dx$$

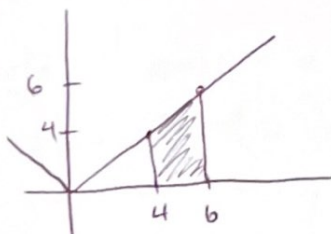


$$-\frac{1}{2}(2)(2) = -2$$

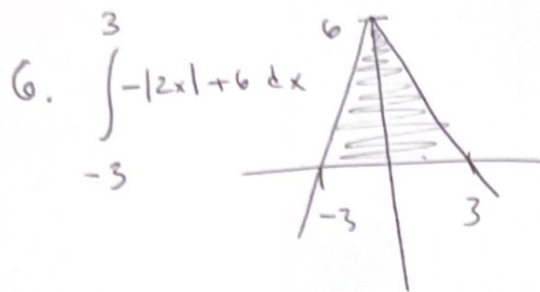
$$\frac{1}{2}(3)(3) = \frac{9}{2}$$

$$\frac{9}{2} - 2 = \boxed{\frac{5}{2}}$$

$$5. \int_4^6 |x| \, dx$$



$$\left(\frac{4+6}{2}\right)(2) = \boxed{10}$$



$$\frac{1}{2}(6)(6) = \boxed{18}$$

7. $\int_{-3}^3 \sqrt{9-x^2} \, dx$



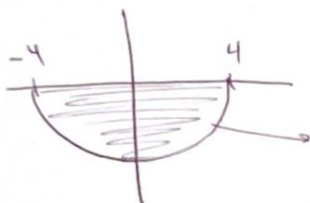
$$\frac{1}{2} \pi (3^2) = \boxed{\frac{9\pi}{2}}$$

8. $\int_{-2}^0 \sqrt{4-x^2} \, dx$



$$\frac{1}{4} \pi (2^2) = \boxed{\pi}$$

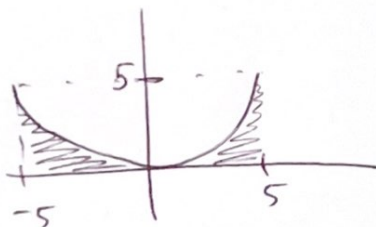
9. $\int_{-4}^4 -\sqrt{16-x^2} \, dx$



below x-axis

$$-\frac{1}{2} \pi (4^2) = \boxed{-8\pi}$$

10. $\int_{-5}^5 5 - \sqrt{25-x^2} \, dx$



rectangle - semicircle
 $(5)(10) - \frac{1}{2} \pi (5^2)$

$$\boxed{50 - \frac{25\pi}{2}}$$