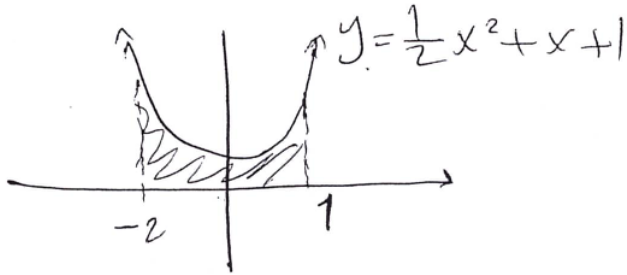


**38** Find the area:-



$$A = \int_{-2}^1 \left( \frac{1}{2}x^2 + x + 1 \right) dx$$

$$= \frac{1}{2} \cdot \frac{x^3}{3} + \frac{x^2}{2} + x \Big|_{-2}^1$$

$$= \frac{x^3}{6} + \frac{x^2}{2} + x \Big|_{-2}^1$$

$$= \left( \frac{1}{6} + \frac{1}{2} + 1 \right) - \left( \frac{-8}{6} + \frac{4}{2} + -2 \right)$$

$$= \frac{10}{6} - \frac{-8}{6}$$

$$= \frac{18}{6} = \boxed{3}$$

**42** Find the area between  $y = x^2 + 3x + 2$  and the x-axis from  $x = -1$  to  $x = 3$ .

$$\rightarrow x^2 + 3x + 2 = 0$$

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

$\sim x = -2, -1$   
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