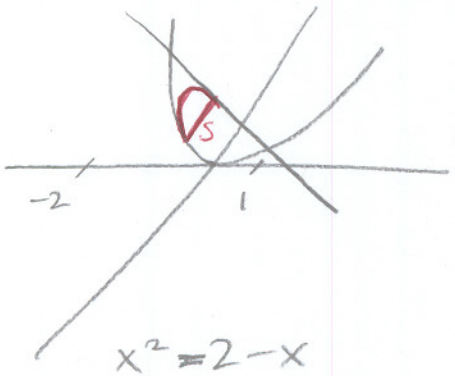
The base of a solid is the area in the xy-plane bounded by $y = x^2$ and $y = 2 - x$. Cross sections perpendicular to the x-axis are semicircles. Write an integral (or sum of integrals) for the volume. DO NOT EVALUATE THE INTEGRAL.

SCORE: ___ / 4 POINTS



$$x^2 = 2 - x$$
$$x^2 + x - 2 = 0$$
$$(x+2)(x-1) = 0$$
$$x = -2, 1$$

$$\int_{-2}^{1} \frac{1}{8}\pi (2 - x - x^2)^2 \, dx$$

$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ 1 $1\frac{1}{2}$ $\frac{1}{2}$