

$$\begin{aligned}
3) \int \frac{dx}{-\frac{1}{2} \sqrt{8+2x-x^2}} &= \int \frac{dx}{-\frac{1}{2} \sqrt{-(x^2-2x-8)}} = \\
&= \int \frac{dx}{-\frac{1}{2} \sqrt{-(x^2-2x+1-1-8)}} = \int \frac{dx}{-\frac{1}{2} \sqrt{-(x-1)^2+9}} = \\
&= \int \frac{d(x-1)}{-\frac{1}{2} \sqrt{3^2-(x-1)^2}} = \arcsin \frac{x-1}{3} \Big|_{-\frac{1}{2}}^1 = \\
&= \arcsin 0 - \arcsin\left(-\frac{1}{2}\right) = 0 + \frac{\pi}{6} = 0,524.
\end{aligned}$$