1) Find the solution of the following integral. (2 points)

$$
\begin{equation*}
\int_{4}^{9} \frac{1}{\sqrt{x+2}-\sqrt{x}} d x \tag{1}
\end{equation*}
$$

hint: By performing one simplification you might change this integral to what you are familiar with!
2) Evaluate the following integral.

$$
\begin{equation*}
\int \arctan (x)+x \sin (x) d x \tag{2}
\end{equation*}
$$

