1. A point $A$ in space is at a voltage 300 V. What can this fact be used for? Is it at all useful?

Can we use this information to predict the magnitude or direction of the force on a charge that we put at $A$?

2. Two conductors, $A$ and $B$, have a potential difference so that $B$ is 100 V greater than $A$. What will happen if we release a proton from $B$?

What will happen if we release an electron from $B$?

Does conductor $B$ have a net positive charge or a net negative charge?

If I bring a proton from $A$ to $B$, how much work must I do?

If I bring a proton from $A$ to $B$, how much work must the electric field do?

Suppose that I release a proton from rest at $B$ and it does fly onto $A$. What are its final kinetic energy and velocity?

Will the proton necessarily fly to $B$ from $A$ when released from rest? Why might it not?