1. True or false? The PoE formula in the space frame only correctly calculates the end-effector configuration if you first put the robot at its zero configuration, then move joint n to θ_n, then move joint $n-1$ to θ_{n-1}, etc., until you move joint 1 to θ_1. 1 / 1 point

- ○ True.
- ◉ False.

Correct
Of course not! The configuration of the end-effector doesn't depend on the time history of the joint values, just the current joint values.

2. Consider the screw axis $\mathcal{S}_i$ used in the PoE formula. Which of the following is true? 1 / 1 point

- ○ $\mathcal{S}_i$ represents the screw axis of joint i, expressed in the end-effector frame {b}, when the robot is at its zero configuration.
- ○ $\mathcal{S}_i$ represents the screw axis of joint i, expressed in the end-effector frame {b}, when the robot is at an arbitrary configuration θ.
- ◉ $\mathcal{S}_i$ represents the screw axis of joint i, expressed in the space frame {s}, when the robot is at its zero configuration.
- ○ $\mathcal{S}_i$ represents the screw axis of joint i, expressed in the space frame {s}, when the robot is at an arbitrary configuration θ.

Correct

3. When the robot is at an arbitrary configuration θ, does the screw axis corresponding to motion along joint i, represented in {s}, depend on θ_{i-1}? 1 / 1 point

- ○ No.
- ◉ Yes.

Correct
Since joint $i-1$ is between joint i and the space frame {s}, the joint variable θ_{i-1} impacts how the joint motion is represented in {s}.