Experimental Design Practice

After doing an experiment with wheat grass in soil and no soil (sponge), Sarah was curious about whether the type of soil made a difference in how wheat grass grows. She decided to investigate the question: “How does soil type affect plant growth?”

- She grew two plants in sand. She grew ten plants in soil.
- She kept everything else the same between the two sets of plants (such as the amount of water and days watered, location in the room).
- She measured the height of the plants in centimeters once a week. The plants in sand grew an average of 5 cm in 3 weeks. The plants in soil grew on average 15 cm in 3 weeks.
- Sarah made the claim: Plants grow better in soil than in sand.

1. Independent Variable = _____ /1

2. Dependent Variable = _____ /1

3. Controlled Variables (2) _____ _____ /2