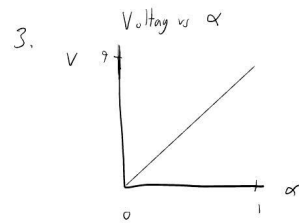


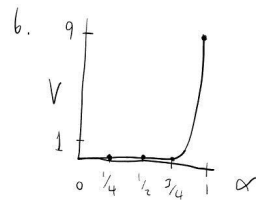
Light

September 15, 2024



4. If this was an ideal voltage source, the brightness should increase linearly.

5. resistance from $0 - 10k\Omega$ between wiper & gnd



7. Measuring the resistance of the bulb, it is quite low, so $(\alpha \times 10k\Omega) \parallel R_{bulb}$

is roughly R_{bulb} . Therefore

$$V_{bulb} = 9V \cdot \frac{R_{bulb}}{R_{bulb} + (1-\alpha)10k\Omega}$$

which is nonlinear,

and only above 1V at alpha values close to 1.