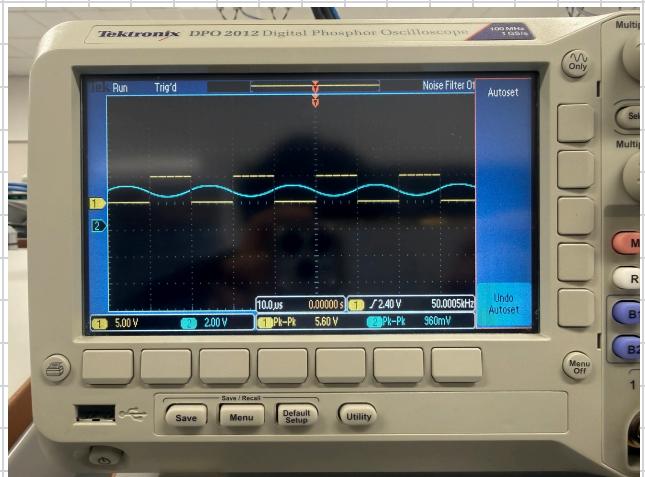


TASK 1:



TASK 2:



TASK 3:

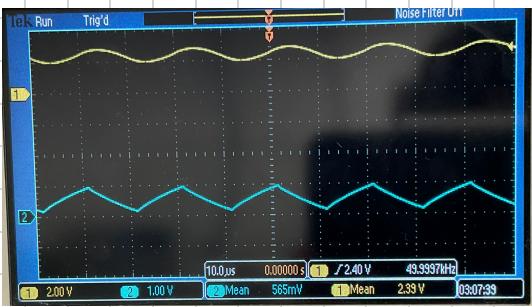
| V _{in} | O _p Out | I _{out} | V _{out} |
|-----------------|--------------------|------------------|------------------|
| 5 V | 0.565V | 4.78 A | 2.39 V |
| 10 V | 1.140V | 11.64 A | 4.82 V |
| 15 V | 1.690V | 14.42 A | 7.21 V |
| 20 V | 2.340V | 19.26 A | 9.62 V |

$$I_{out} = \frac{V_{out}}{0.5}$$

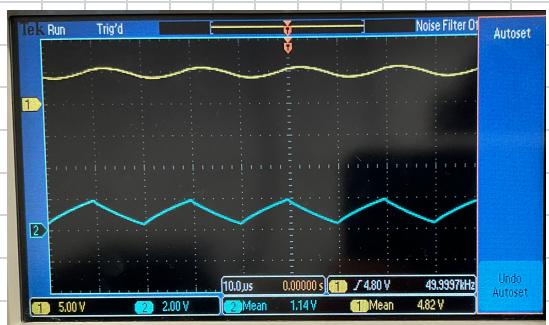


V_{out} & $O_p \text{ Out}$ are both directly proportional to V_{in} .

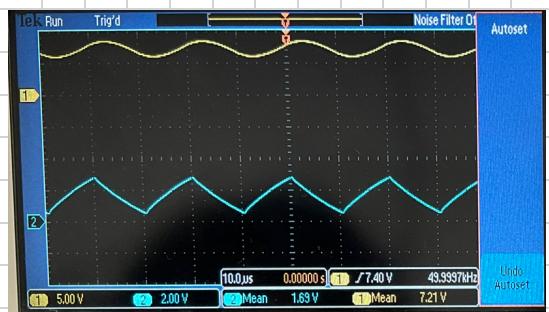
$$V_{in} = 5V$$



$$V_{in} = 10V$$



$$V_{in} = 15V$$



$$V_{in} = 20V$$

