In-Class Examples

```
import numpy

voltage = {'S': 120 + 0j, 'L': 110*numpy.exp(1j*numpy.radians(-5))}
impedance = {'S': 0.2 + 0.5j, 'L': 0.3+0.1j}
current = {'S': (voltage['S']-voltage['L'])/(impedance['S']+impedance['L'])}

print(f"{current['S']:.2} Amps")

#Vx = Is*Zl + Vl
voltage['X'] = current['S']*impedance['L'] + voltage['L']
print(f"{voltage['X']:.3} Volts")

power = {'L': impedance['L']*current['S'].conjugate()}
print(f"{power['L']}")
```

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```
poles = 4
hertz = 60
rpm = 1200


rps = 1200/60
slip = (60/2 - rpm) / (60/2)
print(slip)
```