In the following question. I want each student to use the provided data to size and electrical service for a mock house.

1. House Square footage 3500
2. Small appliance loads # 3
3. Laundry Rooms #1
4. Applying the demand Factors articles 220.42
5. Cooking equipment 12 kw
6. Dryer 4500 watts
7. Fixed appliances micro hub 1500 watts 120v

Garbage Disposal 1000 watts 120v

Water Heater 4500 watts 240v

1. Heat Pump with the following parameters. The Outdoor unit 240v 60-amp unit with an indoor unit which has 15kw electric heat strips which will run at the same time as the defrost on the outdoor unit.
2. Largest motor to Phase 240v
3. Largest motor to neutral 120v
4. Total Phase
5. Total amperage
6. Final amperage according to article 310.15b7