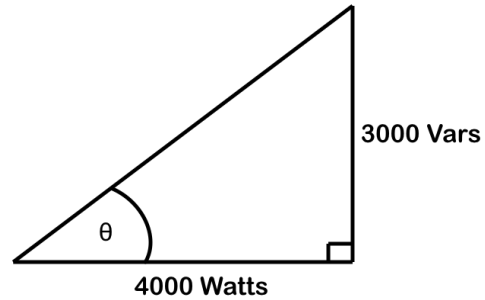
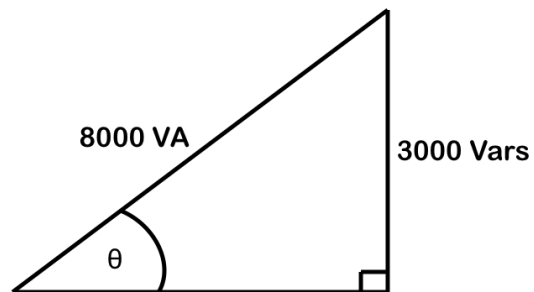


Power and Impedance triangles worksheet

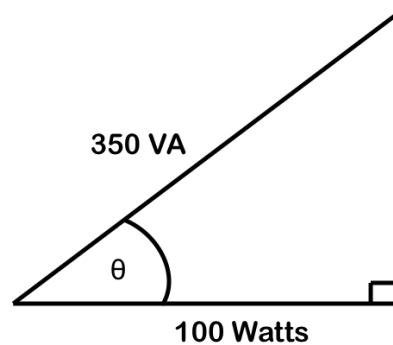
1. Using the drawing below, determine the apparent power and the angle theta.



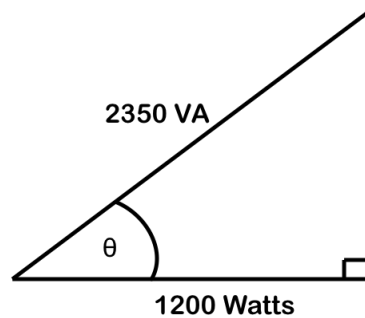
2. Using the drawing below, determine the true power and angle theta.



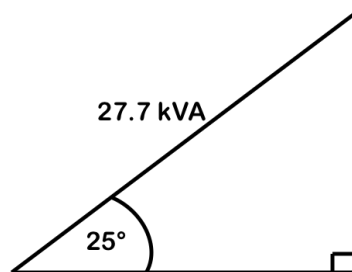
3. Using the drawing below, determine the reactive power and angle theta.



4. An AC circuit is dissipating 1200 watts of true power and has 2100 vars of reactive power. Determine the apparent power of the circuit.
5. An AC circuit is dissipating 12 kW of true power and has 21 kVA of apparent power. Determine the reactive power of the circuit.
6. An AC circuit has 15.6 kVA of apparent power and 7.8 kVARs of reactive power. Determine the true power of the circuit.
7. Using the drawing below, determine the angle theta.



8. Using the drawing below, determine the true power.



Answers

1. 5000 VA, 36.87°
2. 7416.2 Watts, 22°
3. 335.4 VARs, 73.4°
4. 2418.7 VA, 60.26°
5. 17.2 kVARs
6. 13.5 kW
7. 59.3°
8. 25.1 kW