



## 10.A.5

Consider the Brayton cycle that is shown in the figure. Given is that at the compressor inlet the temperature is 20 degree Celsius and the pressure is 1 Bar. What are the pressure and temperature at the turbine outlet?

Answer: T can't be derived from the information given, P = 1 Bar

Explanation: It can be seen that this is an open brayton cycle, so the pressure at point 1 is the same as at point 4, 1 bar. The temperature at the outlet cannot be derived from the information given. Therefore you need more information like the temperature at point 3 and the isentropic efficiency of the turbine, however it is impossible that it is 20 degree Celsius.