

Quiz 3a, 2019/09/20

Name (pinyin): _____

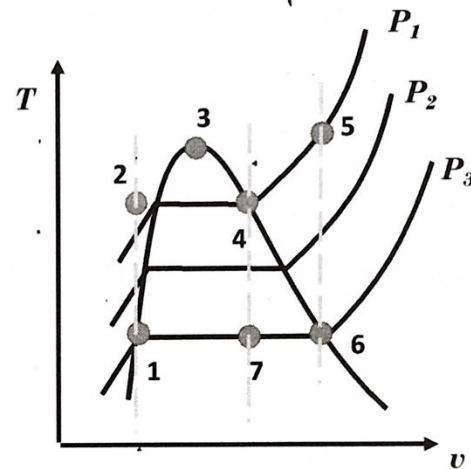
Name(Chinese): _____

Name(English): _____

1. (2) The quality of saturate vapor is _____

2. (15) For the figure on right, for each point, write all terms that applies (based on knowledge learned in class thus far)

- State 1 _____ State 2 _____
- State 3 _____ State 4 _____
- State 5 _____ State 7 _____
- Proc 1-2 _____ Proc 2-4 _____
- Proc 1-7 _____ Proc 6-7 _____



- a) Isobaric
- b) Isothermo
- c) Isochoric (or isometric)
- d) Adiabatic
- e) Compression
- f) Expansion
- g) superheated vapor
- h) compressed liquid
- i) saturated liquid
- j) saturated vapor
- k) quality < 1
- l) critical point

3. (3) 2 kg of gas in a piston-cylinder undergoes a process during which the relationship between pressure and specific volume is $pv^{0.5} = \text{constant}$. The process begins with $p_1 = 300$ kPa and $V_1 = 4.0$ m³, and ends with $p_2 = 150$ kPa. Determine the final specific volume, in m³/kg.