Answers to Fall 2018 Thermodynamics Exam 2

2. Q = 1630 Btu

3. T_2 = 480 °F

4a. $h_{in} = u_2$

4b. T_2 = 235.5 °F

5. Liquid water, brakes on car after stopping, and a gas at high temperature

6. c – 6.92

7. b – 1.33

8. The m_dot terms (including those in parenthesis)

9. c – 143 m/s

10. b - Heat pump > Ref > Carnot engine > Real engine

11. c – adiabatic

12. b and d

13. c – horizontal lines

14. d – 0.0127 ft^3/lbm