

Assigned Problems from
Thermodynamics, Statistical Mechanics & Kinetics,
by T. Engel and P. Reid, 3rd Edition
Fall 2013

The dates indicated are when I expect you to **start** working on the assignment. I expect each assignment will be completed by the date of the following one.

Set #1 September 10.

Questions Q1.1, Q1.6, Q1.10, Q1.11

Problems: P1.1, P1.2, P1.8, P1.20.a

Set #2 September 17.

Questions Q1.2, Q1.14

Problems P1.3, P1.5, P1.26a, P1.30, P1.31

Set #3 September 24.

Questions Q2.1, Q2.5, Q2.6, Q2.7, Q2.11, Q2.16, Q2.17

Problems P2.2, P2.3, P2.9, P2.10, P2.21

Set #4 October 1.

Questions Q2.12, Q2.13, Q2.19, Q2.24

Problems P2.6, P2.7 (see section 2.11), P2.14, P2.20, P2.28 (see example 2.6), P2.38

Set #5 October 15.

Questions Q3.2, Q3.11

Problems P3.3, P3.11, P3.13, P3.19, P3.31

Set #6 October 22.

Questions Q3.7, Q3.17

Problems P3.4, P3.9, P3.10, P3.25, P3.32, P3.37

Set #7 October 29.

Questions Q4.4, Q4.7, Q4.8, Q4.9, Q4.14

Problems P4.1, P4.8, P4.17 c) and d), P4.30

Set #8 November 5.

Questions Q4.1, Q4.10, Q4.16, Q4.17

Problems P4.2, P4.3, P4.15 (answer: $6.46 \times 10^3 J/K$), P4.26

Set #9 November 12.

Questions Q5.7, Q5.14

Problems P5.2, P5.5, P5.6 a) and b), P5.7 b) and c): use $V_c = 113L$ and $V_d = 33.0L$, P5.11, P5.12, P5.19, P5.42, P5.43.

Set #10 November 19.

Questions Q5.1, Q5.3, Q5.6, Q5.12, Q5.15, Q5.20, Q5.21

Problems P5.1, P5.4, P5.20 (hint: you will need equations 1.22, 2.5, 2.29, and the integrated form of equation 3.12), P5.28, P5.34 (use your results from P5.7, $q_{ab} = -w_{ab}$ and $q_{cd} = -w_{cd}$), P5.35 and P5.39

Set #11 November 22.

Questions Q6.5, Q6.7, Q6.12, Q6.20

Problems P6.1, P6.5, P6.7, P6.14, P6.22, P6.33, P6.34

Set #12 November 29.

Questions Q6.1, Q6.23, Q6.13 to 6.18

Problems P6.2, P6.4, P6.11, P6.19 part 1 only, P6.32, P6.37, P6.42