**Formula Sheet Based on *Finn’s* *Thermal Physics,4th ed.*, by Rex**

(When quoting a formula from this sheet write down **the** formula **and** its number)

**1. TEMPERATURE**

 (1.1)

 (1.2)

 (1.3)

**2. REVERSIBLE PROCESSES AND WORK**

 (2.1)

 (2.2)

 (2.3)

**3. FIRST LAW OF THERMODYNAMICS**

 (3.1)

 (3.2)

 (3.3)

 (3.4)

 (3.5)

 (3.6)

 (3.7)

 (3.8)

 (3.9)

**4. SECOND LAW OF THERMODYNAMICS**

 (4.1)

 (4.2)

 (4.3)

 (4.4)

**5. ENTROPY**

 (5.1)

 (5.2)

 (5.3)

 (5.4)

**6. INTRO TO STATISTICAL MECHANICS**

 (6.1)

(6.2)

 (6.3)

 (6.4)

 (6.5)

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**7. MORE ON THERMODYNAMIC POTENTIALS**

 (7.1)

 (7.2)

**8. GENERAL THERMODYNAMIC RELATIONS**

 (8.1)

(8.2)

 (8.3)

 (8.4)

 (8.5)

**9. MAGNETIC SYSTEMS**

 (9.1)

 (9.2)

 (9.3)

**10. PHASE CHANGES**

 (10.1)

 (10.2)

**11. OPEN SYSTEMS**

 (11.1)

 (11.2)

**APPENDIX A. SOME PHYSICAL CONSTANTS**





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1 Btu = 1055 J





**APPENDIX B. SOME INTEGRALS**

 (B.1)

More generally:

 (B.2)

 (B.3)

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