p. 251 #1-7 Even Answers

2. $\dfrac{dS}{dt} = 8\pi r \dfrac{dr}{dt}$

4a. $\dfrac{dP}{dt} = 2RI\dfrac{dI}{dt} + I^2\dfrac{dR}{dt}$

4b. $\dfrac{dR}{dt} = -\dfrac{2R}{I}\dfrac{dI}{dt}$

6. $\dfrac{dA}{dt} = \dfrac{1}{2}\left(b\sin\theta\dfrac{da}{dt} + a\sin\theta\dfrac{db}{dt} + ab\cos\theta\dfrac{d\theta}{dt}\right.$