

- (7.) (10 points) For some positive constant C , a patient's temperature change, T , due to a dose, D , of a drug is given by

$$T = f(D) = \left(\frac{C}{2} - \frac{D}{3} \right) D^2.$$

- (a) What dosage maximizes the temperature change?

- (b) The sensitivity of the body to the drug is defined as dT/dD . What dosage maximizes sensitivity?