6. One calorie is equivalent to 4.19 Joules so we use the ratio technique developed in Chapter 1.

$$x / 4.19 \text{ J} = (500 \text{ cal}) / (1 \text{ cal})$$

Multiplying both sides of the equation by 4.19 cal gives

$$x = (500)(4.19 \text{ J}) = 2095 \text{ J}$$