7-56)

From the swimmer's point of view, this is pretty easy.

$$W = F \, \Delta x \, \cos \theta_{F,\Delta x} = 80 \times 1.8 \times \cos(0) = \text{144 Joules}$$

for each stroke. The power is then

$$P = \frac{\text{work}}{\text{time}} = \frac{144 \text{ J/stroke}}{0.5 \text{ seconds/stroke}} = \text{288 Watts}.$$

Note that we can not use this number to find his change in kinetic energy, since although by the third law the water exerts a force of 80 N forward on him, he does not travel the full 1.8 meters during each stroke.