



Practice #1: A crane is able to lift  $2.20 \times 10^6$  kg. If the crane is able to raise this mass a distance of 20.0 m by doing  $4.32 \times 10^8$  J of work in 35 s, how much power (in W) has the crane provided?

Practice #2: The world's most powerful tugboats, which are built in Finland, are capable of providing  $8.17 \times 10^6$  W of power. How much work (in J) does one of these tugboats do in 12 s?

Practice #3: Suppose a weightlifter's power output is 178 W during the time he does 3310 J of work on the weights. How long (in s) does it take the weightlifter to raise the weights?