

## Power - 5.6

Power (P) is a rate. It is the rate at which

- Energy is used ( $E_e$  or  $E_g$  or  $E_k$  etc.) ...or
- Work is done ( $W = Fd$ )

The unit is Watts or Joules/second.

$$P = E/t \quad P = W/t$$

Look at:

Example 11 - proportionality \* this is helpful!

If  $P = E/t$ , then  $P \propto E/t$

so... as  $E$  increases, then  $P$  increases

so... as  $t$  increases, then  $P$  decreases.

Example 13 - little harder - involves  $E_g$  and a ramp (use trig for height)

Look at this one too.

Try: pg. 259 # 1,2,4 (number problems)

Pg. 273 # 1,2,3,4,5,6,7,8 (thought problems)