

Calculating work and power

Calculate the missing numbers in the table below.

	Distance (m)	Force (N)	Time (s)	Work (J)	Power (W)
1	6	10	4		
2	4		5		50
3		30		600	300
4	10	500			100
5	16		8	64	
6	0.5	100			25
7		200	2	100	
8	50		30	1500	
9	100	800			4000
10	8	25	75		
11	12		15		350
12		125		1000	7000
13	75	15			750
14	10.5		7	85	
15		175	150	12000	

Fill in the missing word.

1. A 100 W light bulb has more _____ than a 60 W light bulb.
2. Power is the amount of _____ per unit of time.
3. The unit of power is equal to one _____ per second.
4. _____ is the rate at which work is done.
5. Electrical appliances are rated in _____.
6. Power can be calculated by multiplying force x distance and dividing by _____.
7. When the _____ needed to do work increase, the power decreases.
8. A 150 W light bulb does 150 _____ of work in 1 s.
9. A 15 hp lawn mower can do more _____ in the same amount of time than a 12 hp lawn mower can.
10. If time and force do not change, the only way for power to increase is if _____ increases.