

Useful Estimations

1	Power of a car = 60KW
2	Weight of an adult = 700N
3	Energy requirement for a person for one day = 10,000,000 J
4	Speed of sound = 300ms ⁻¹
5	Speed of plane= 300ms ⁻¹
6	Speed on a motorway = 30ms ⁻¹
7	Height of UK mountain = 1000m
8	Height of a tall man = 2m
9	Mass of a car = 1000kg
10	Mass of an adult = 70kg
11	Power of washing machine = 350-500W
12	Power of coffee maker = 900-1200W
13	Power of a bulb = 100W
14	Mass of the earth = 6x10 ²⁴ kg
15	Radius of the earth = 6 00km
16	Distance to the Sun = 150,000,000km
17	Distance to the moon = 400,000km
18	Density of water = 1000kgm ⁻³
19	Power of a person = 100W
20	Pressure of the atmosphere = 1x10 ⁵ Pa
21	Power of heater = 750-1500 W
22	Power of hair dryer = 1200-1875W
23	Power of electric iron = 1000-1800W
24	Power of microwave oven = 750-1100W
25	Power of Radio (Stereo) = 70-400W
26	Power of Refrigerator = 725W
27	Power of Television = 120W
28	Power of Toaster oven = 1225W
29	Power of DVD = 20-25W
30	Power of VCR = 17-21W
31	Power of vacuum cleaner = 1000-1440W
32	Current through a landline device = 0.8A
33	Mass of moon = 7.34767309 x 10 ²² kg
34	Distance from Boston to London = 4800Km
35	Mass of human heart = 250-350g
36	Mass of an apple = 100g
37	Power of Grinder = 1380W
38	Power of air compressor = 2000W
39	Power of water bed (heater) =120-380W
40	Power of water pump = 250-1100W
41	Power of water heater = 4500-5500W
42	Body temperature = 37°C

43	Diameter of eyeball = 24mm
44	Diameter of water = 1000kgm ⁻³
45	Density of wood = 1120kgm ⁻³
46	Density of copper = 8.9gcm ⁻³
47	Length of human arm = 35cm
48	Length of human hand = 17cm
49	Mass of wooden door = 15kg
50	Mass of a 30cm ruler = 20g
51	Mass of a pencil = 25g
52	Mass of a proton = 1.67 x 10 ⁻²⁷ kg
53	Thickness of paper = 0.1mm
54	Thickness of hair = 0.001cm
55	Diameter of glass = 8cm
56	Volume of human head = 2400-5000cm ³
57	Area of a car = 4000cm ³
58	Weight of a car = 11 00N
59	Power of telephone = 30W
60	Mass of a flower = 2g
61	Diameter of earth = 12,700km
62	Mass of electron = 9.11 x 10 ⁻³¹ kg
63	Mass of eraser = 20g
64	Density of plastic = 1.2g/cm ³
65	Length of pencil lead = 0.5cm
66	Size of human finger = 7cm
67	Length of house window = 20cm
68	Mass of riding boots = 2kg
69	Mass of hair brush = 0.25kg
70	Weight of inches tape = 100g
71	Weight of bottle cork = 0.1N
72	Weight of 1.5 litre bottle = 1000n
73	Weight of 1 litre bottle = 0.1kg
74	Weight of tissue paper = 20N
75	Mass of tissue paper = 2g
76	Volume of wardrobe = 300,000cm ³
77	Mass of a tree = 7.86tonnes
78	Volume of a tree = 12m ³
79	Gravity on moon = 1.6 m/s ²
80	Volume of a kettle = 1.5litre
81	Power of a kettle = 1000W
82	Thickness of greeting card=1-2 mm
83	Thickness of wooden door = 5cm
84	Mass of a football = 0. kg °«` \$£
85	Density of football = 5.6kg/m ³

86	Mass of door handle = 1kg
87	Diameter of pipe = 1cm
88	Mass of an elephant = 4 tones
89	Size/diameter of molecule up to 10^{-9}m
90	Diameter of alpha particle up to 10^{-15}m
91	Size of a nucleus 10^{-15}m
92	Molecular spacing 10^{-9}m
93	Mass of protractor 5-10g
94	Mass of an apple up to 300g
95	Mass of pencil up to 10g
96	Mass of sheet of paper 3-7g
97	Mass of a sparrow 50g
98	Volume of air in a room 125m^3
99	Density of milk 1100kgm^{-3}
100	Density of blood $1056\text{-}1066\text{ kgm}^{-3}$
101	Pressure due to 10m depth of water 100kPa
102	Pressure of 760mm of mercury 100kPa
103	Wavelength of white light $\approx 400\text{-}700\text{nm}$
104	Wavelength of infra red light $> 700\text{nm}$
105	Wavelength of ultra violet light $< 400\text{nm}$
106	Mass of electronic calculator 200g
107	No of second in a day 86400s
108	Young modulus of metals $10^{11}\text{-}10^{12}\text{Pa}$
109	Ionization power of alpha 10^5pairs/mm
110	Ionization power of beta 10^3pairs/mm
111	Ionization power of gamma 1pair/mm
112	Slit separation 0.3mm to 3.0mm
113	Distance of screen from slits 1m to 4m
114	Grating spacing 1.0um to 3.0um
115	Mass of a bicycle 20Kg to 30 Kg
116	Mass of 1m long national grid wire 1kg to 2kg
117	Resistance of domestic filament bulb 500Ω
118	Average speed of a person 10ms^{-1}
119	Average K.E of a man 4000J
120	Resistance of LDR in sun light 100Ω
121	Resistance of LDR in moon light $1\text{M}\Omega$
122	Resistance of LDR in complete darkness $10\text{M}\Omega$
123	Diameter of a hair 0.5 mm
124	No of hair on human head 2×10^6
125	Pressure under human foot $5\text{MPa}/8\text{MPa}$