Area

square

area = side\_length x side\_length

rectangle

area = short\_side\_length x long\_side\_length

circle

area = 0.5 x pi x (d/2)^2

triangle

(with one right angle)

area = 0.5 x shortest\_side\_length x medium\_length\_side\_length

(not the longest side)

Volume

cube

Volume = side\_length x side\_length x side\_length

rectangular block

Volume = height x width x length\_front\_to\_back

circumference

dinstance around an object

square

dist = 4 x side\_length

rectangle

dist = 2 x short\_side\_length x long\_side\_length

circle

dist = 2 x pi x (d/2)

distance = speed x time

100 kmh x 3 hrs

= 300 km

surface area

area of the square flat surfaces of a cube or block

cube

area = 6 \* side\_length x side\_length

rectangular block

Volume = 2 \* height x width + 2 \* height x length\_front\_to\_back + 2 \* width x length\_front\_to\_back

percentages

percentage

amount = ---------- x larger\_amount

100

8% of 200

8

= ---- x 200

100

= 16

heat capacity

power x time

tempreture change = --------------------------

heat\_capacity x volume

example

boil 1 lt water

2400W element

2400 J sec-1 x 80 degC x 1000 ml x 10 J ml-1 degC-1

= 2400 J sec-1 x 800,000 J

= (1/2400 J-1 sec) x 800,000 J

= 333 sec

= 5.5 minutes

power Watts

time seconds

tempreture change degrees C

heat\_capacity 10 (water), dependant on the type of material

volume ml

conversions

ml to litres value x 1000

litres to m^3 value x 1000

mm to metres value / 1000

seconds to minutes value / 60

minutes to hours value / 60

hours to days value / 24

terms

m^2 square metres

m^3 cubic metres

ml millilitres

pi constant/letter from mathematical alphabet, 3.14

d diameter of a circle, the distance from one side

across the middle to the other side

recommended units

(SI system)

time seconds

distance metres

area square meters M^2

volume cubic meters M^3

weight kilograms

power Watts

energy Joules

//speed

Size values

Thousand 1,000

Million 1,000,000

Billion 1,000,000,000

e.g.

two thousand = 2,000.

.

/ divide, -----

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