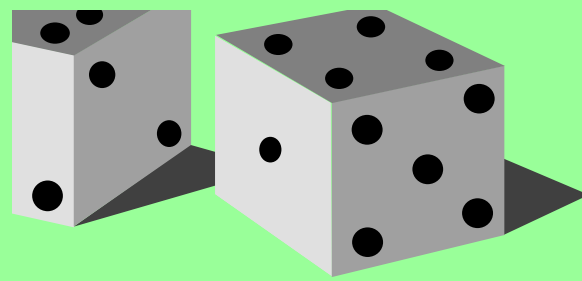
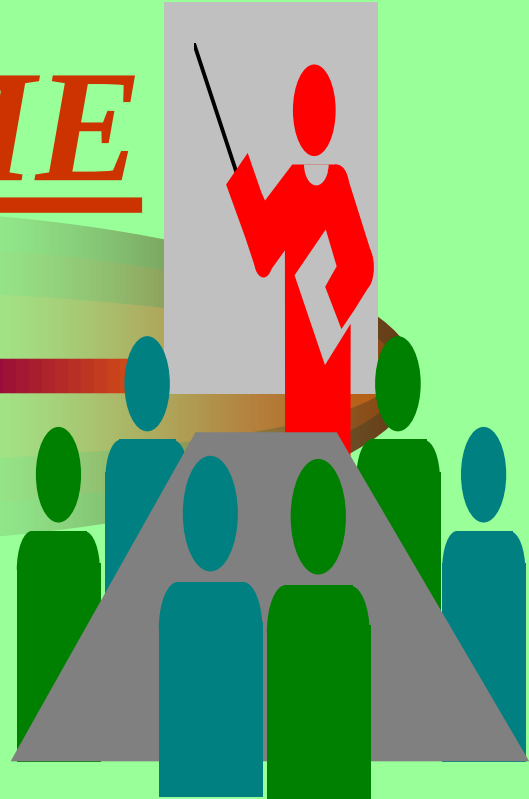
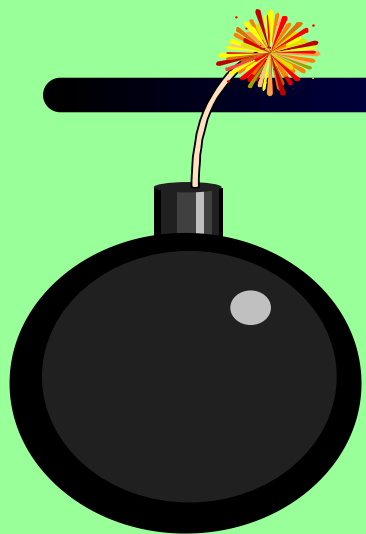
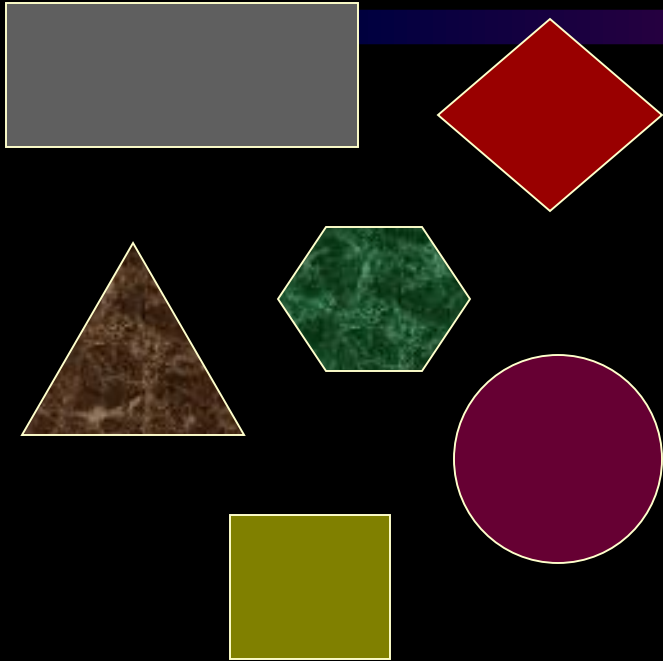


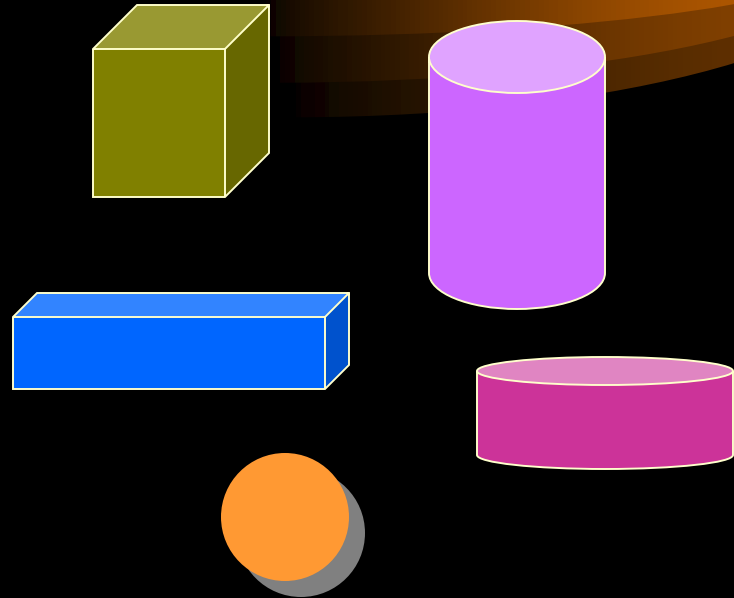
AREA AND VOLUME



WHAT IS THE DIFFERENCE?



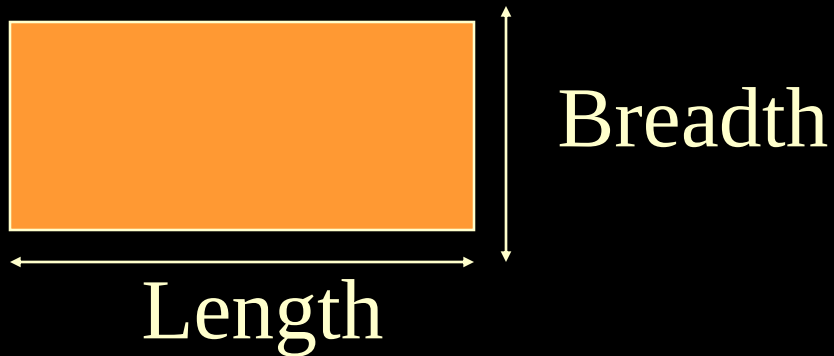
THESE ARE
PLANE FIGURES



THESE ARE
SOLID FIGURES

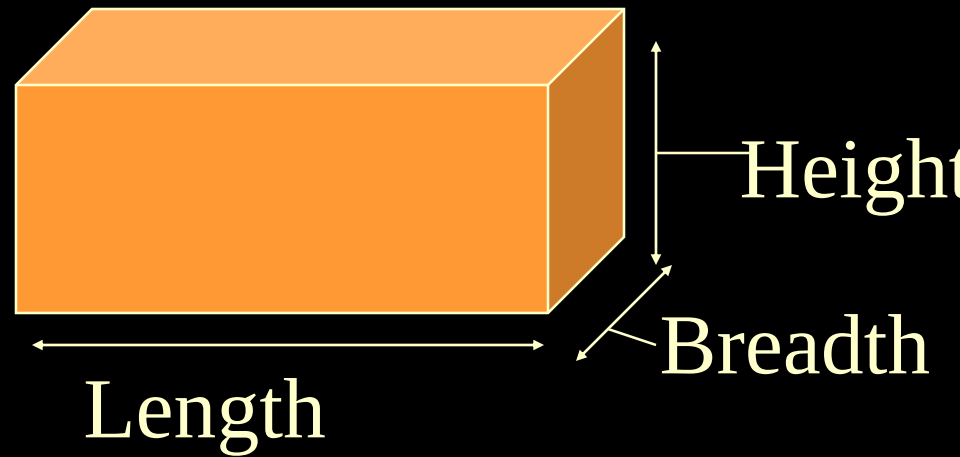
DIMENSIONS

PLANE FIGURE



Plane figures have two dimensions length and breadth.

SOLID FIGURE



Solid figures have three dimensions length, breadth and height.

AREA AND VOLUME

AREA

The magnitude of a plane figure is called the area.

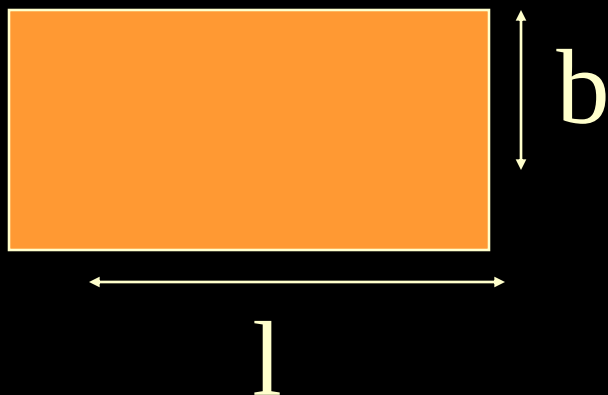
VOLUME

The magnitude of a solid figure is called the volume.

FORMULAE

A

R



E

$$\text{Area} = l \times b$$

Where, l - length

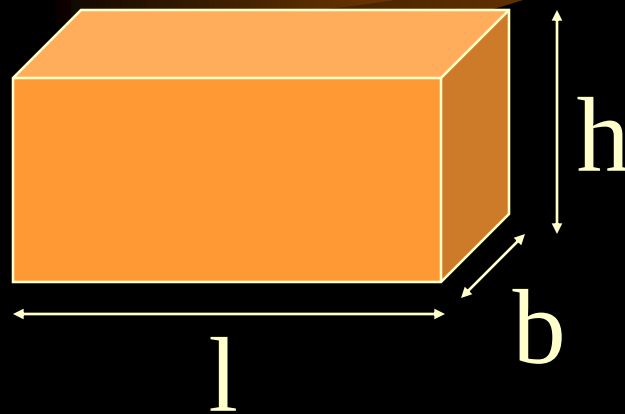
A

b - breadth

V

O

L



U

$$\text{Volume} = l \times b \times h$$

M

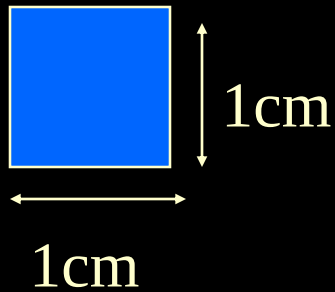
Where, l - length

E

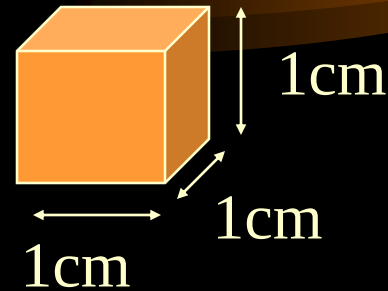
b - breadth

h - height

STANDARD UNIT OF AREA AND VOLUME



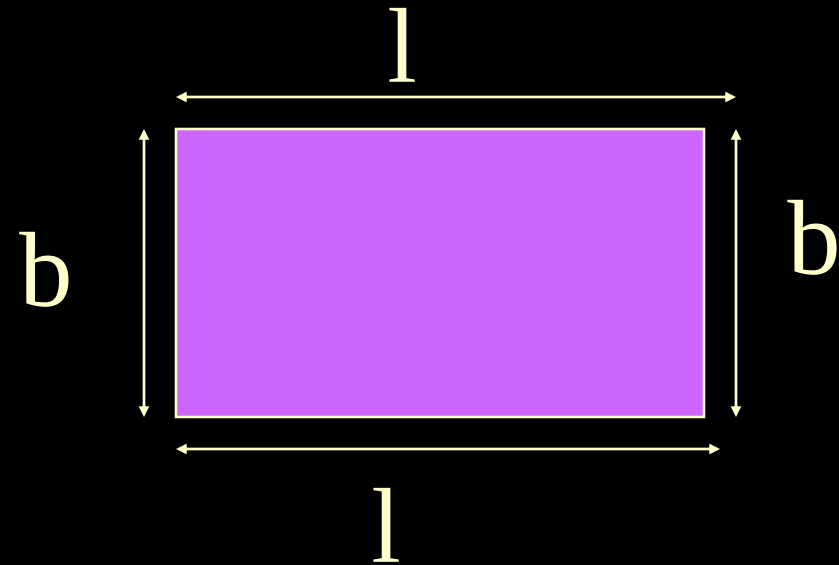
The area of a square whose side is 1cm is called a **square centimetre** and written as **1sq cm** or **1cm²**. This is a standard unit of area.



The volume of a space region formed by a cube, whose side is 1cm long, is called a **cubic centimetre** and is written as **1cu cm** or **1cm³**. This is a standard unit of volume.

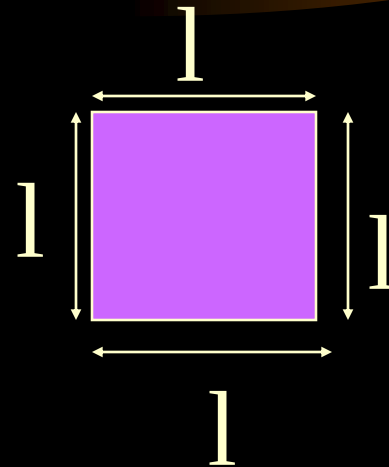
AREA OF RECTANGLE AND SQUARE

Rectangle



Area = l X b

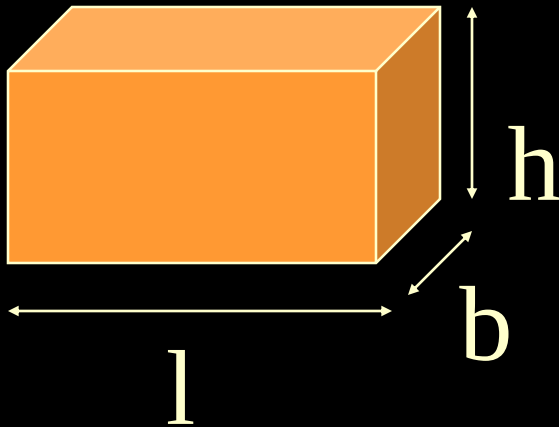
Square



Area = 1 X 1 = 1²

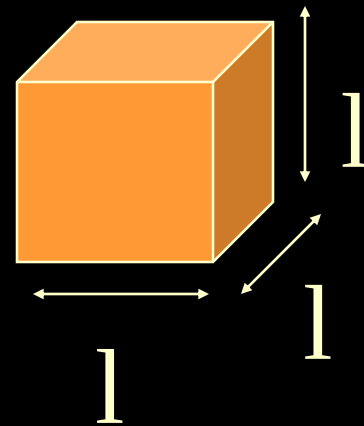
VOLUME OF CUBE AND CUBOID

CUBOID



$$\underline{\text{Volume} = l \times b \times h}$$

CUBE



$$\underline{\text{Volume} = l \times l \times l = l^3}$$

SOME OTHER FORMULAE

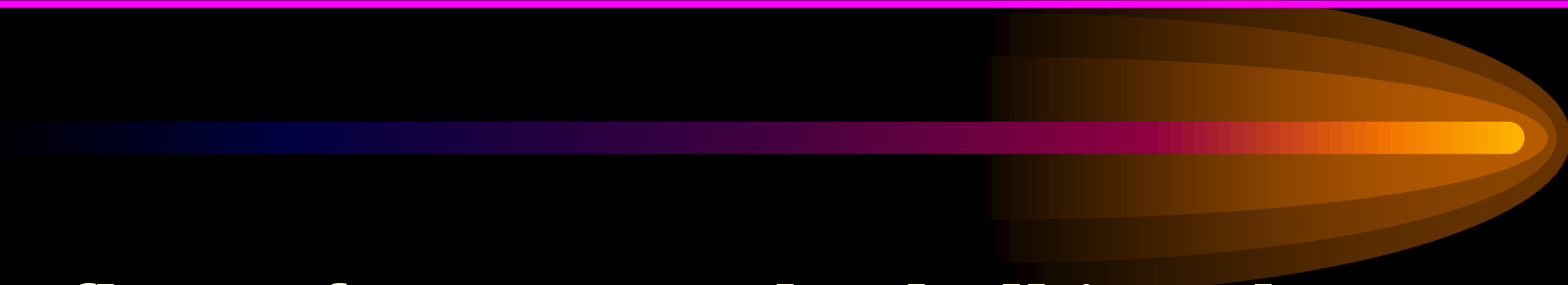
AREA

$$\text{LENGTH} = \frac{\text{AREA}}{\text{BREADTH}}$$
$$\text{BREADTH} = \frac{\text{AREA}}{\text{LENGTH}}$$

VOLUME

$$\text{LENGTH} = \frac{\text{VOLUME}}{\text{BREADTH} \times \text{HEIGHT}}$$
$$\text{BREADTH} = \frac{\text{VOLUME}}{\text{LENGTH} \times \text{HEIGHT}}$$
$$\text{HEIGHT} = \frac{\text{VOLUME}}{\text{LENGTH} \times \text{BREADTH}}$$

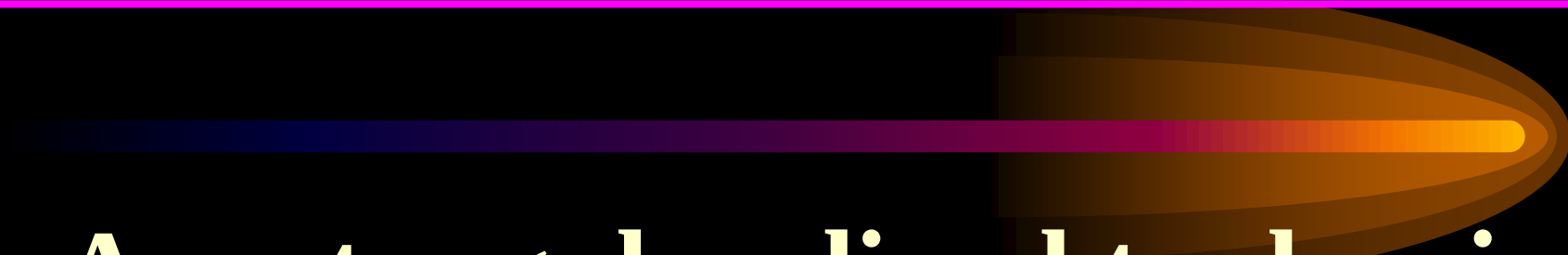
WHAT IS TO BE FOUND AREA OR VOLUME ?



The floor of a rectangular hall is to be covered with a carpet 150cm wide. If the length and the breadth of the hall are 20m and 18m, respectively, find the cost of the carpet at the rate of Rs. 10 per metre

AREA

WHAT IS TO BE FOUND AREA OR VOLUME ?



A rectangular diesel tanker is 2 m long, 2 m wide and 40 cm deep. How many litres of petrol can it hold?

VOLUME

RELATIONS OF UNITS

AREA

$$100 \text{ mm}^2 = 1 \text{ cm}^2$$

$$100 \text{ cm}^2 = 1 \text{ dm}^2$$

$$100 \text{ dm}^2 = 1 \text{ m}^2$$

$$100 \text{ m}^2 = 1 \text{ are}$$

$$100 \text{ ares} = 1 \text{ hectare}$$

$$100 \text{ hectares} = 1 \text{ sq km}$$

VOLUME

$$1000 \text{ mm}^3 = 1 \text{ cm}^3$$

$$1000 \text{ cm}^3 = 1 \text{ dm}^3$$

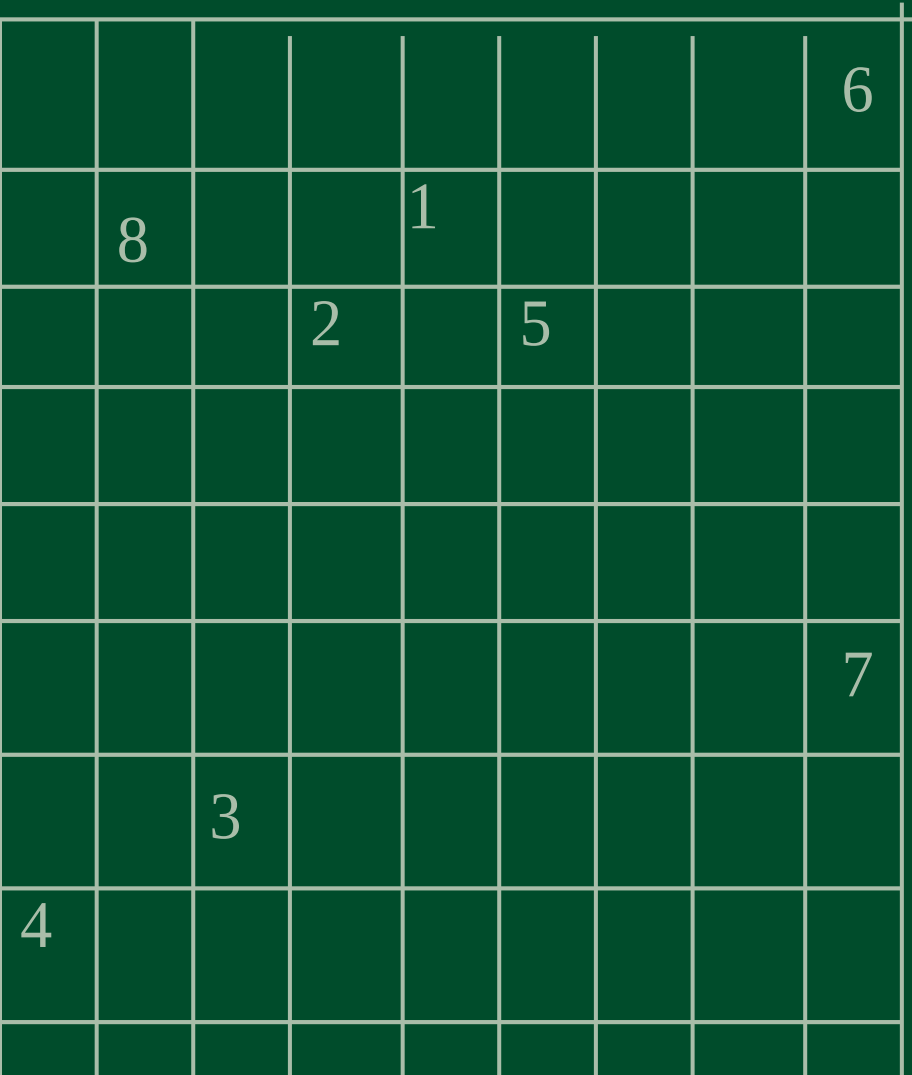
$$1000 \text{ dm}^3 = 1 \text{ m}^3$$

$$1 \text{ litre} = 1 \text{ dm}^3 = 1000 \text{ cm}^3$$

$$1 \text{ m l} = 1 \text{ cm}^3$$

$$1 \text{ k l} = 1000 \text{ l} = 10^6 \text{ cm}^3$$

CROSS WORD PUZZLE



ACROSS:1. A plane fig. Having
length and breadth of equal leng

2. Magnitude of a solid fig.

3. Volume =length X breadth X__

4.. Length =Area/ _____.

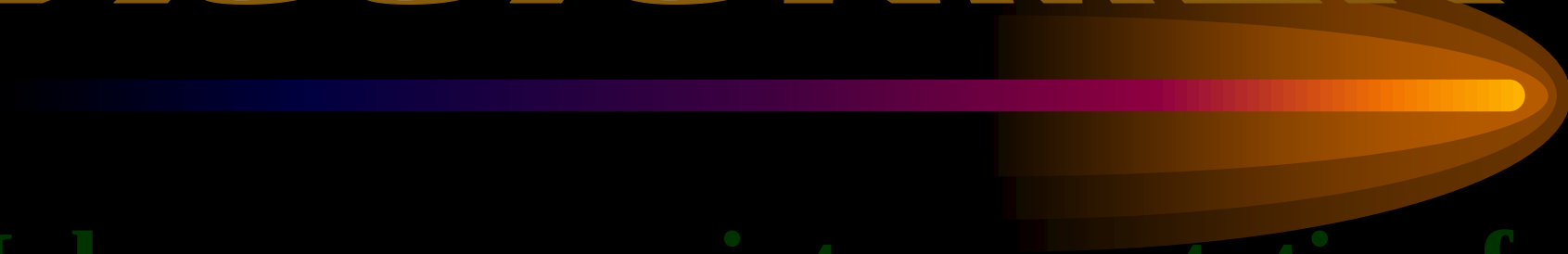
DOWN:5. Area = _____/ breadth

6. Magnitude of a plane figure.

7A solid fig. having all the faces
square.

8. 100 ares = 1 _____.

ASSIGNMENT



Make a power point presentation for:

1.Area of a parallelogram.

2.Area of a triangle.