

OGUN DIGICLASS

CLASS: SECONDARY SCHOOL

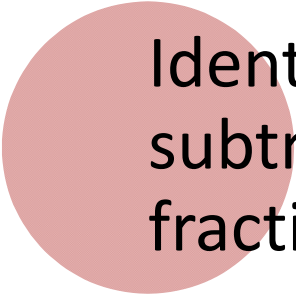
SUBJECT: MATHEMATICS

TOPIC: REVISION

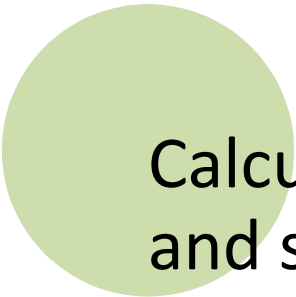


www.ogundigiclass.ng

OBJECTIVES



Identify types of fraction and perform addition , subtraction, multiplication and division of simple fraction

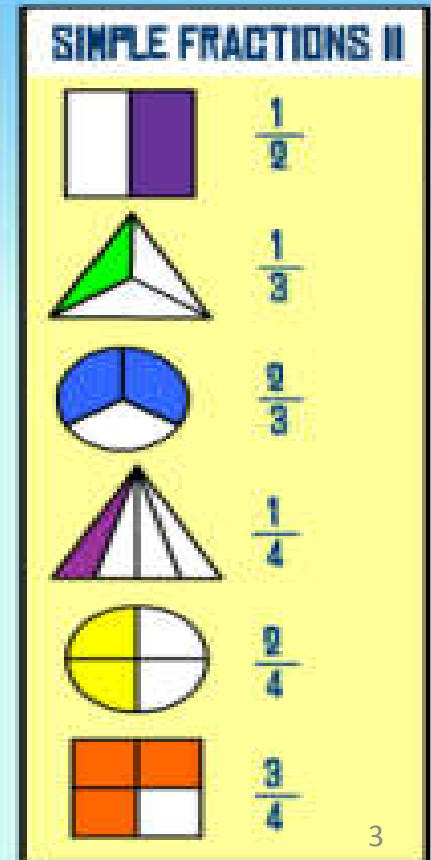
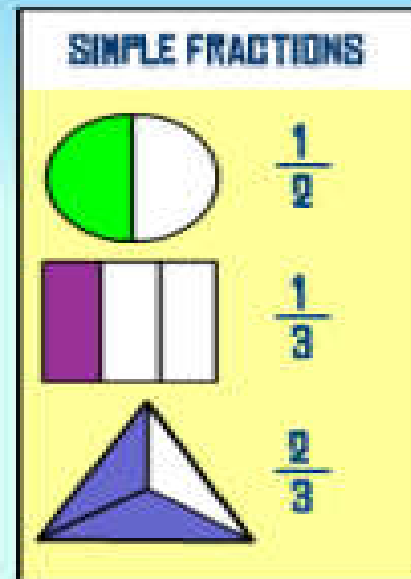
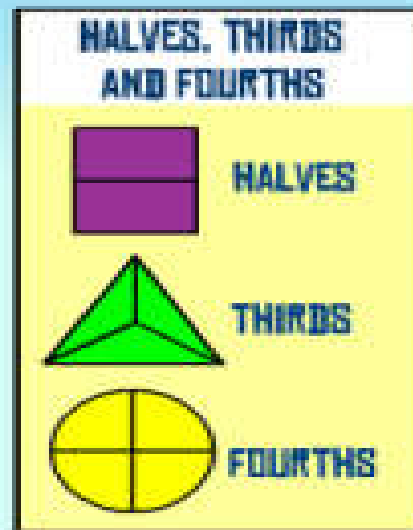
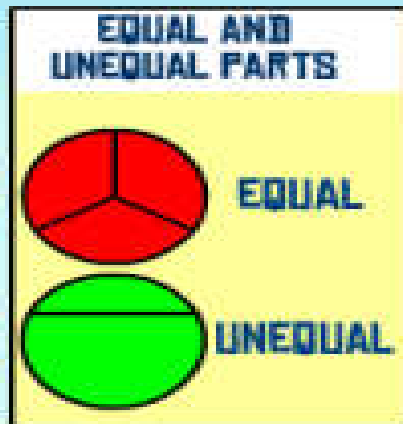


Calculate the perimeter, area and volume of plane and solid shapes

FRACTION

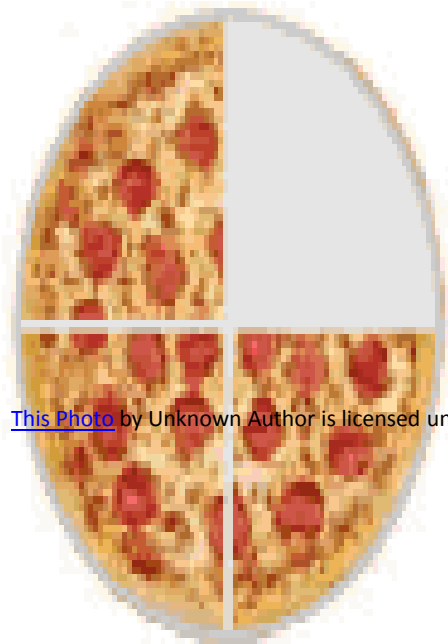
FRACTIONS SHOOT

CLICK ON LEVEL BELOW TO PLAY



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FRACTION



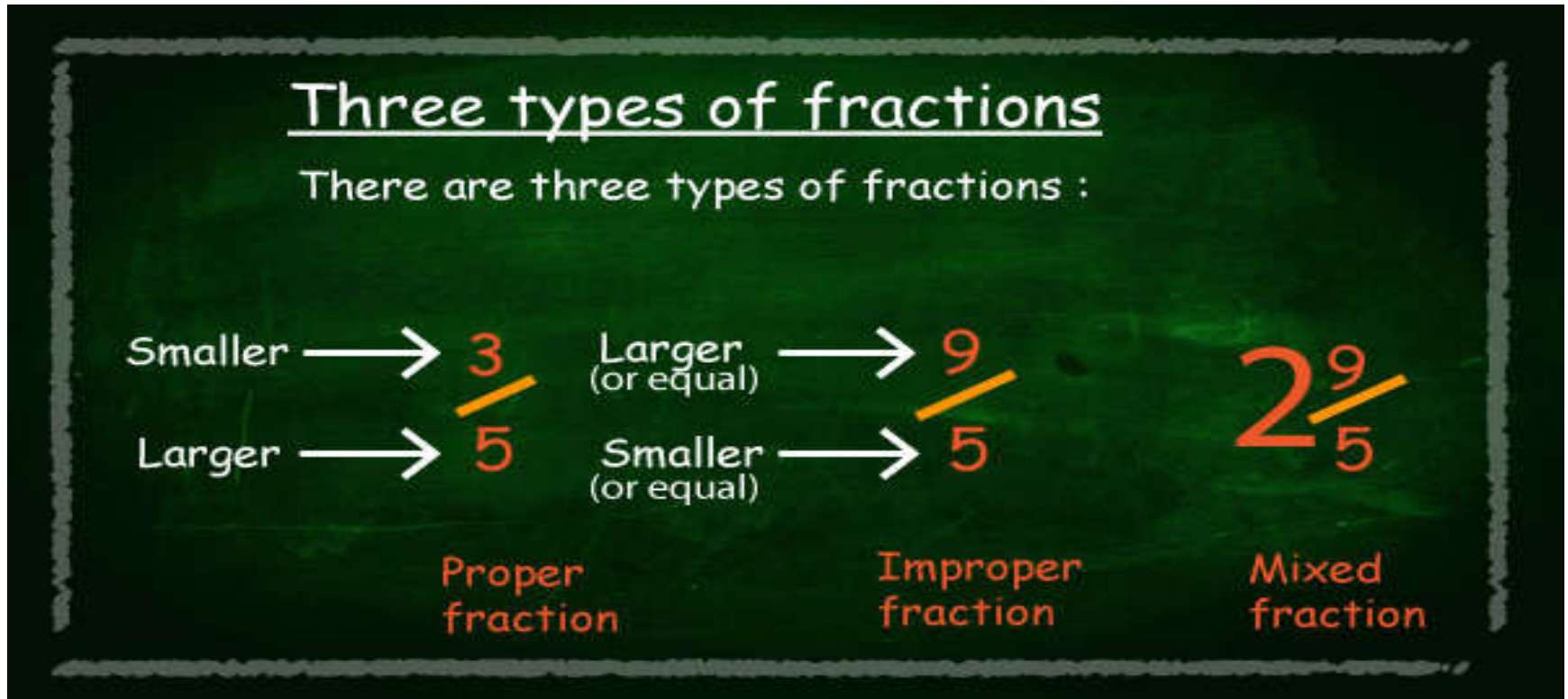
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$$\frac{3}{4}$$

← Numerator

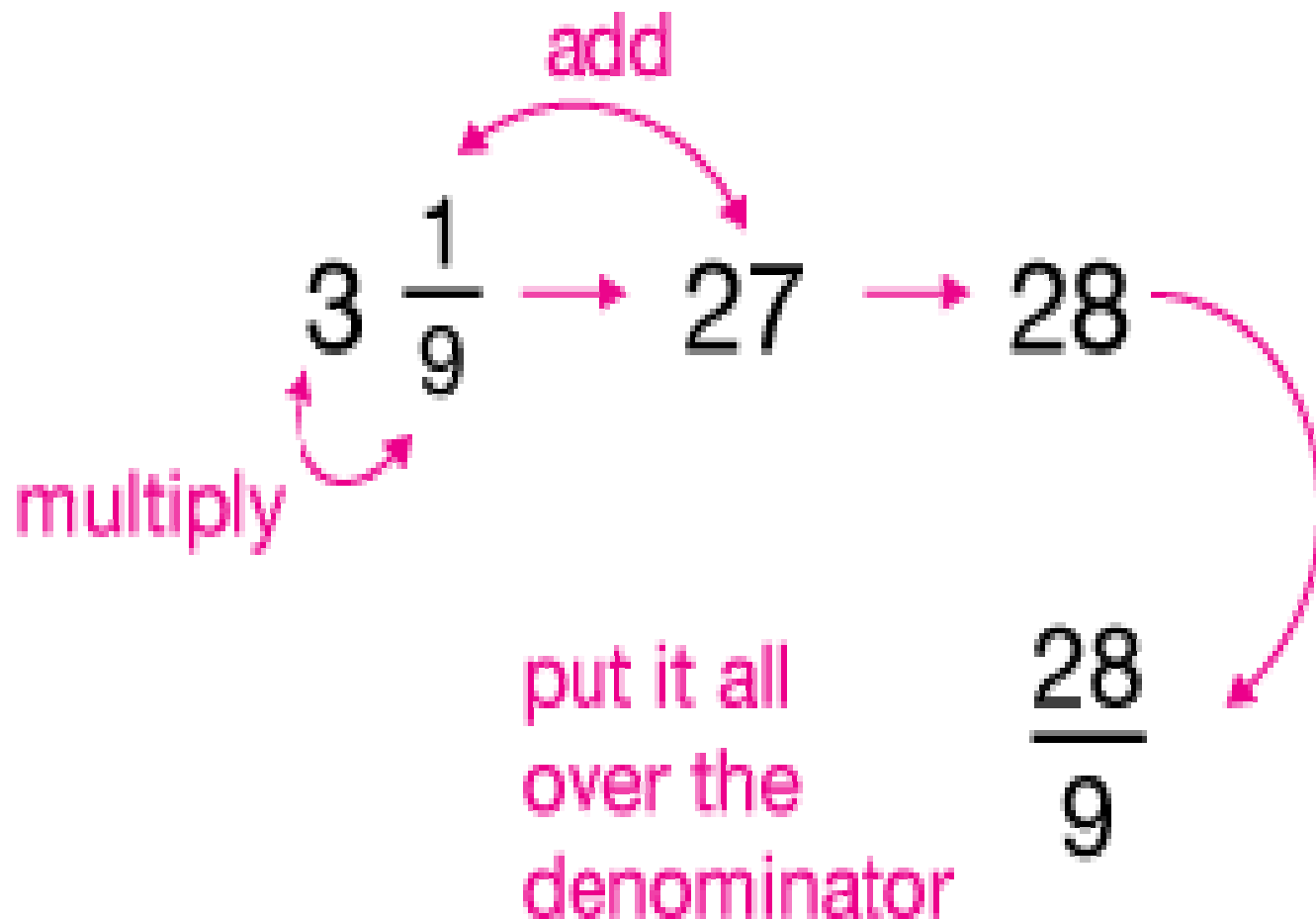
← Denominator

TYPES OF FRACTIONS



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MIXED FRACTION



EXAMPLES

$$1\frac{7}{8} = \frac{(1 \cdot 8) + 7}{8} = \frac{8 + 7}{8} = \frac{15}{8}$$

$$5\frac{1}{3} = \frac{(5 \cdot 3) + 1}{3} = \frac{15 + 1}{3} = \frac{16}{3}$$

$$2\frac{4}{7} = \frac{(2 \cdot 7) + 4}{7} = \frac{14 + 4}{7} = \frac{18}{7}$$

$$9\frac{6}{11} = \frac{(9 \cdot 11) + 6}{11} = \frac{99 + 6}{11} = \frac{105}{11}$$

$$8\frac{5}{8} = \frac{(8 \cdot 8) + 5}{8} = \frac{64 + 5}{8} = \frac{69}{8}$$

LET US TRY THIS NOW

Write this mixed number as a top heavy fraction.

$$5\frac{3}{4}$$

ADDITION AND SUBTRACTION OF FRACTION

Subtraction Fractions with **UNLIKE** denominators

$$\frac{5}{6} - \frac{3}{9} =$$

1. Find the **LCM** of the **denominators**. This is your new denominator.

Multiples of 6 = 6, 12, 18
Multiples of 9 = 9, 18, 27

LCM = 18

2. Rewrite the problem using the LCM.

$$\frac{5}{6} \times 3 - \frac{3}{9} \times 2 = \frac{15}{18} - \frac{6}{18}$$

Whatever you do to the numerator you must do to the denominator.

3. Subtract the numerators. The denominator stays the same.

$$\frac{15}{18} - \frac{6}{18} = \frac{9}{18}$$

4. Simplify

$$\frac{9}{18} \div 9 = \frac{1}{2}$$

Divide by the Greatest Common Factor.

Source: <https://www.khanacademy.org/math/fractions>

MULTIPLYING FRACTION

Multiplying fractions 3 examples

$$\frac{a}{b} \cdot \frac{c}{d} = \frac{ac}{bd}$$

$$\frac{a}{b} \cdot \frac{c + d}{e + f} = \frac{a(c + d)}{b(e + f)} = \frac{ac + ad}{be + bf}$$

$$\begin{aligned} \frac{a + b}{c + d} \cdot \frac{e + f}{g + h} &= \frac{(a + b)(c + d)}{(c + d)(e + f)} \\ &= \frac{ac + ad + bc + bd}{ce + cf + de + df} \end{aligned}$$

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DIVISION OF FRACTION

Invert the fraction
that you are dividing
by

$$\frac{4}{5} \div \frac{2}{3} = \frac{4}{5} \times \frac{3}{2}$$

Multiply the
numerators and
denominators

$$\frac{4}{5} \times \frac{3}{2} = \frac{12}{10}$$

Simplify the fraction
if necessary

$$\frac{12}{10} = 1\frac{1}{5}$$

$$\begin{array}{r} 35 \\ \hline 5 \end{array} = 7$$

Dividend

Quotient

Divisor

LET US TRY THIS NOW

- EVALUATE
$$\frac{1\frac{1}{4} + 1\frac{1}{2}}{5\frac{1}{8} - 3\frac{3}{4}}$$

PERCENTAGE

- A student scored 15 out of 60 marks in ogundigiclass assessment, what percentage is this?
- **Solution**
- $\frac{15}{60} \times 100\%$
- $= 25\%$

LET US TRY THIS NOW

Work out

60% of 90

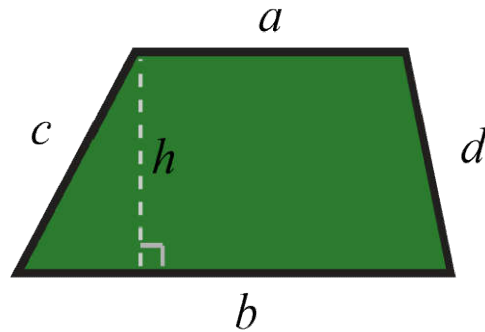
LET US TRY THIS NOW

Work out

$$\frac{3}{5} \text{ of } 100$$

PLANE SHAPES

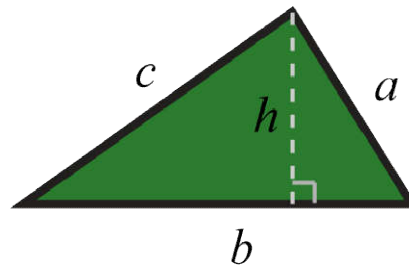
Trapezoid



$$P = a + b + c + d$$

$$A = \frac{1}{2}h(a + b)$$

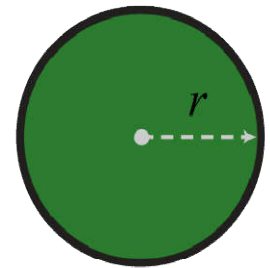
Triangle



$$P = a + b + c$$

$$A = \frac{1}{2}bh$$

Circle



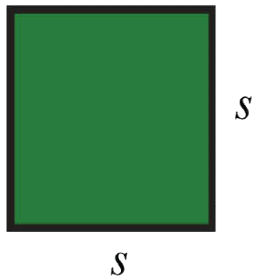
$$C = 2\pi r$$

$$A = \pi r^2$$

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PLANE SHAPES

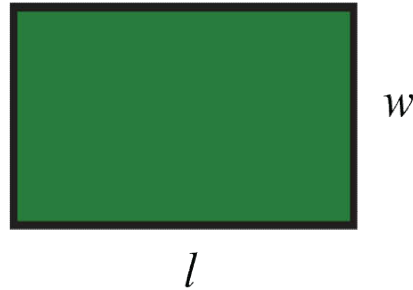
Square



$$P = 4s$$

$$A = s^2$$

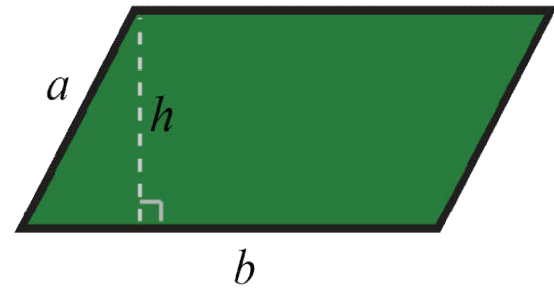
Rectangle



$$P = 2l + 2w$$

$$A = lw$$

Parallelogram



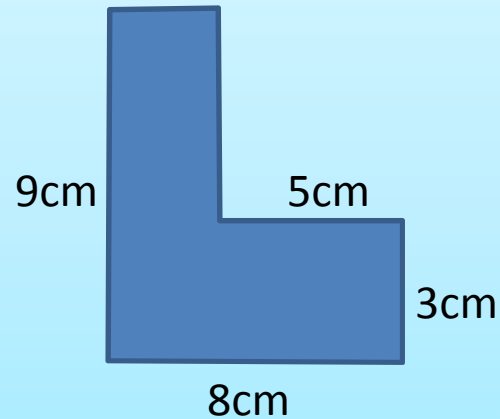
$$P = 2a + 2b$$

$$A = bh$$

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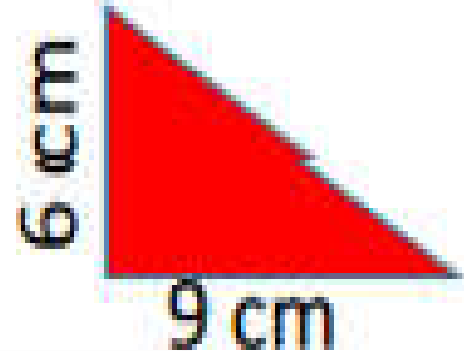
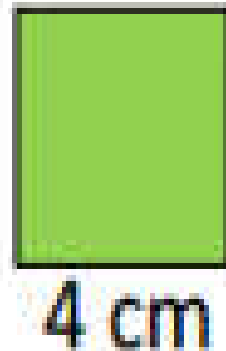
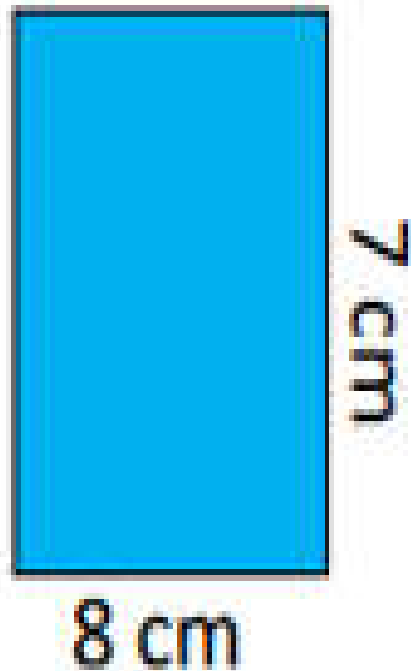
EXAMPLE

Find the perimeter of this shape

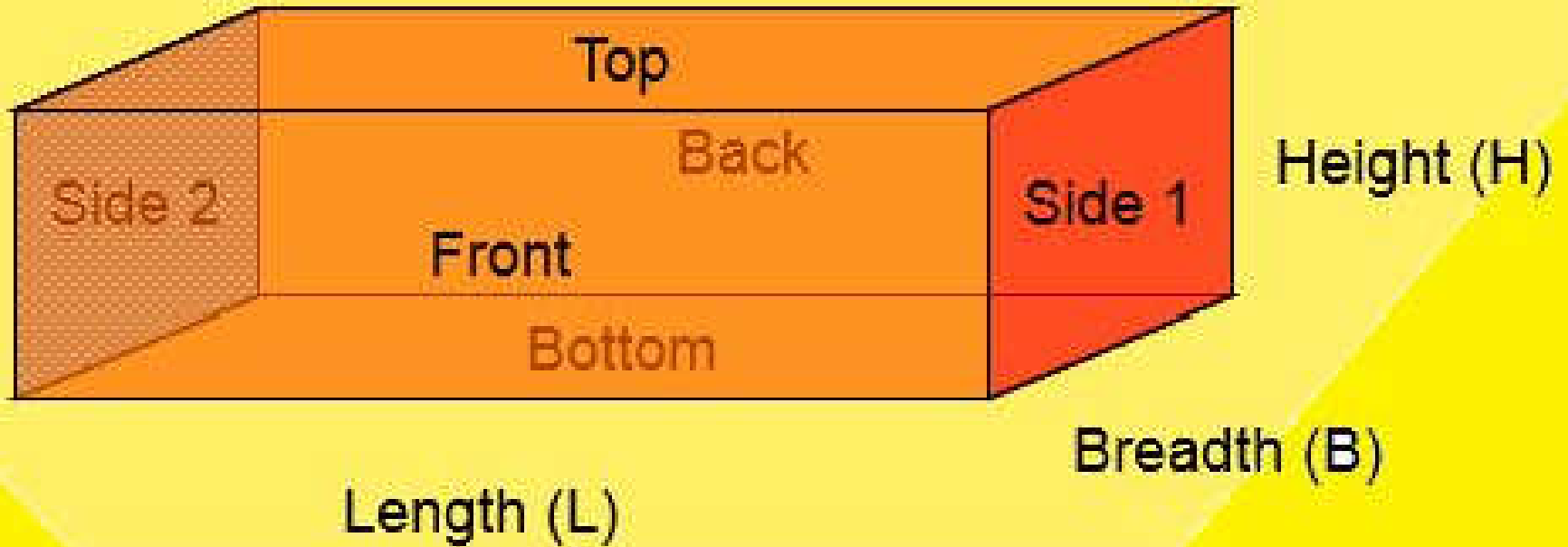


LET US TRY THIS NOW

Find the area of the following shapes.

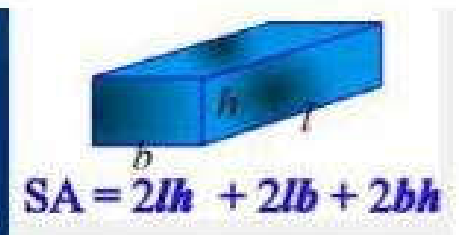
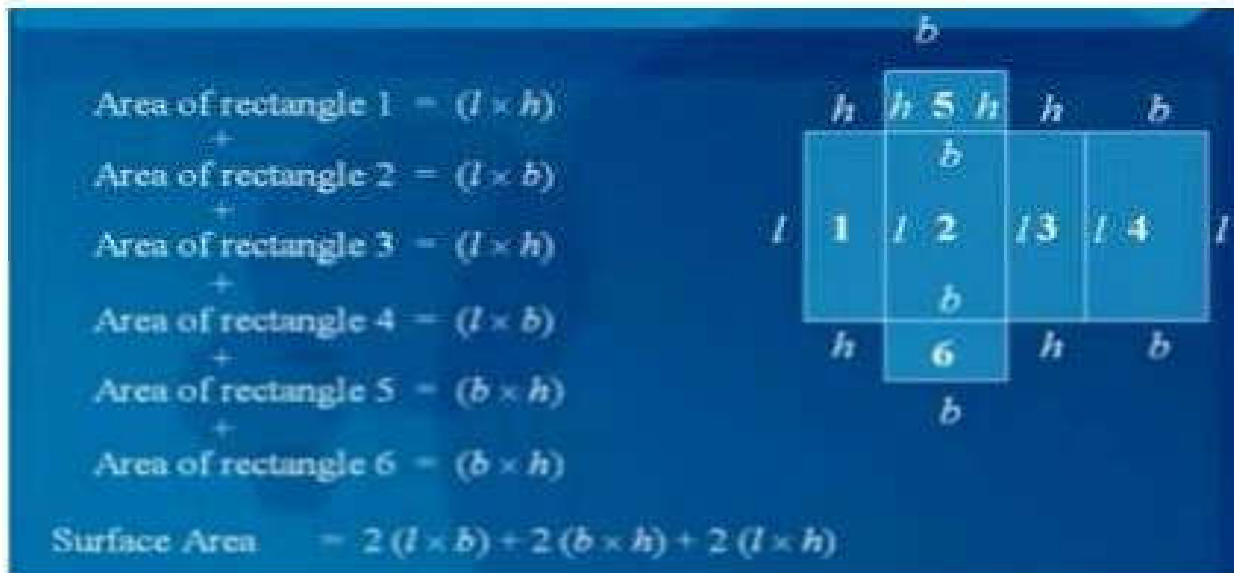


SOLID SHAPES



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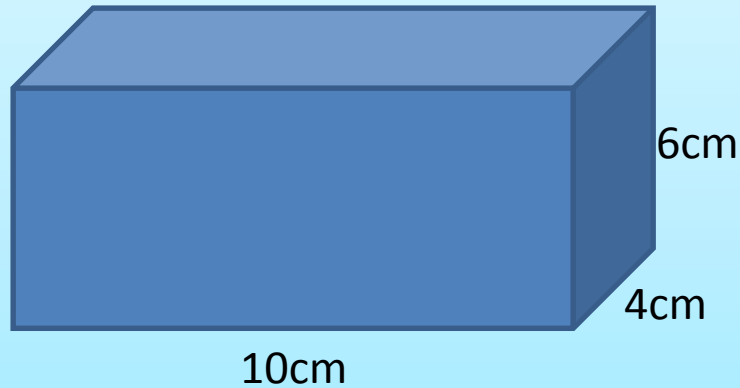
CUBOID



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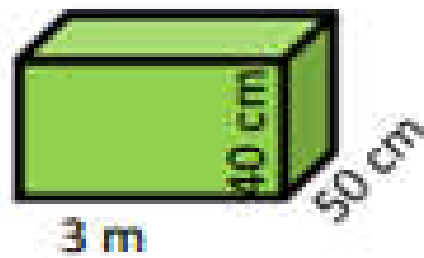
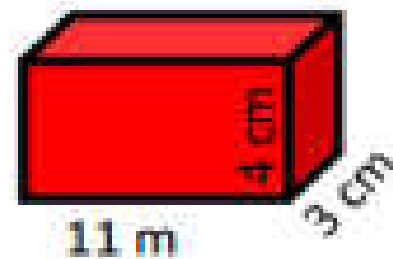
EXAMPLE

Find the volume of this cuboid

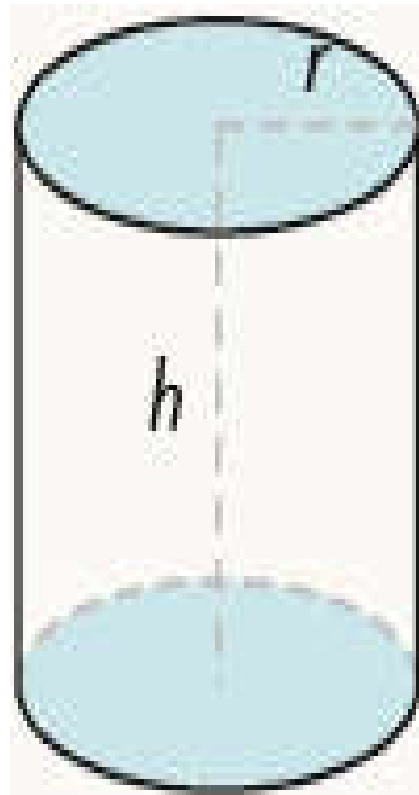


LET US TRY THIS NOW

Skill 2 Find the volume of these cuboids.



CYLINDER



Volume: $V = \pi r^2 h$ or $V = Bh$

Surface Area: $S = 2\pi r^2 + 2\pi rh$

LET US TRY THIS NOW

NOTES: Area/Volume Ratios

Fill in the missing information for the cylinder described.
Leave your answers in terms of π .

Radius	Height	Area of Circle	Surface Area	Volume
r	h	πr^2	$2\pi r^2 + \pi dh$	$\pi r^2 h$
1	8			
4	3			
3				45π
2			48π	
	3	25π		

Objective: Students will apply ratios as they relate to measurements, areas and volumes.

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- For more go onto www.ogundigiclass.ng maths video and it will help you a lot when revising. It has all the topics in it so you wont miss anything out when revising for an exam.