OGUN DIGICLASS

CLASS: SECONDARY SCHOOL

SUBJECT: MATHEMATICS

TOPIC: REVISION

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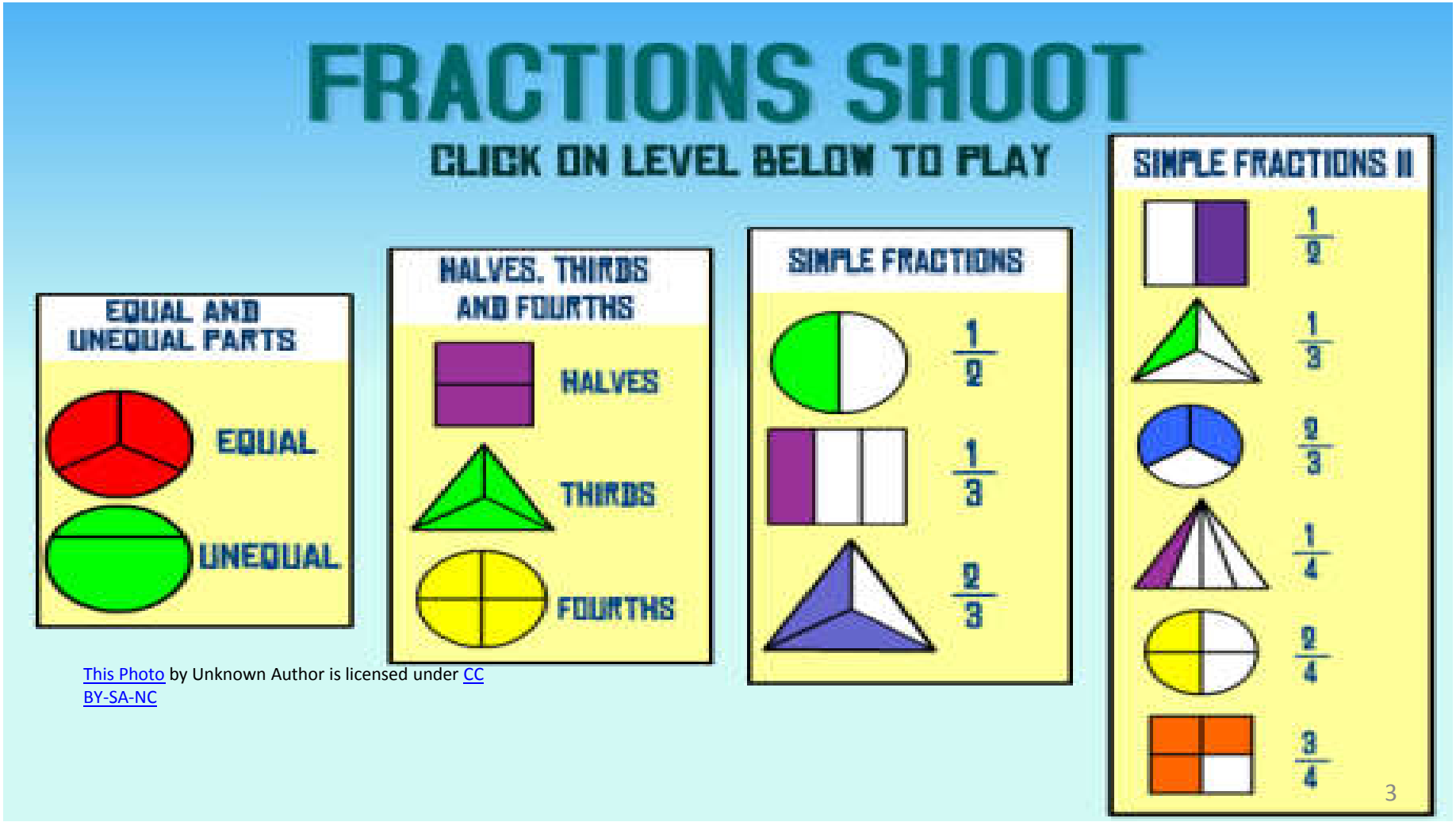
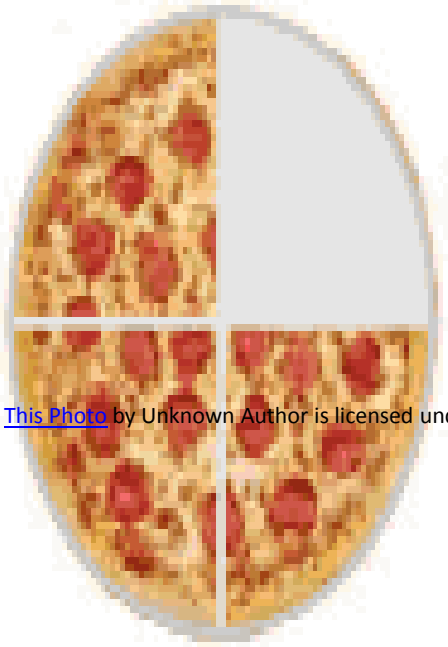
OBJECTIVES

- 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



FRACTION

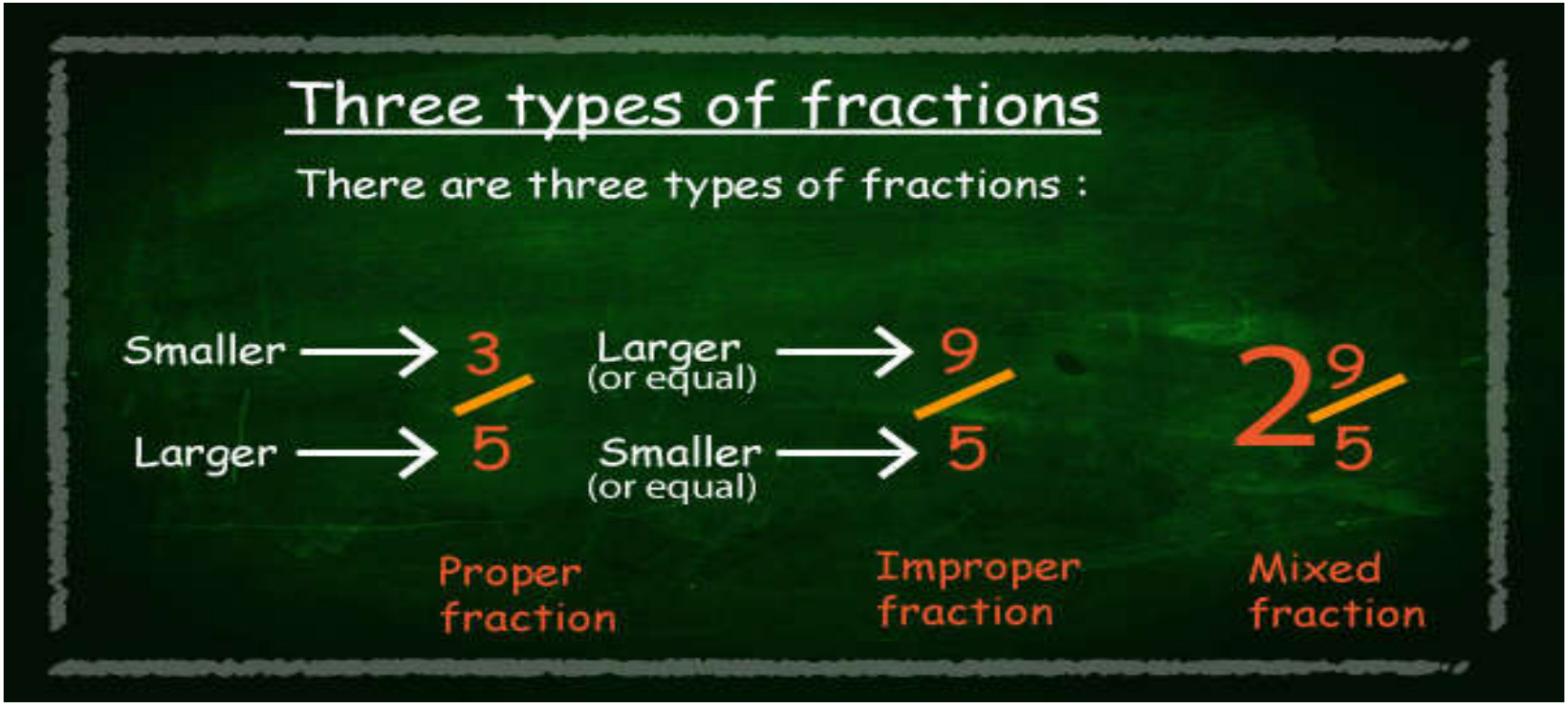


$$\frac{3}{4}$$

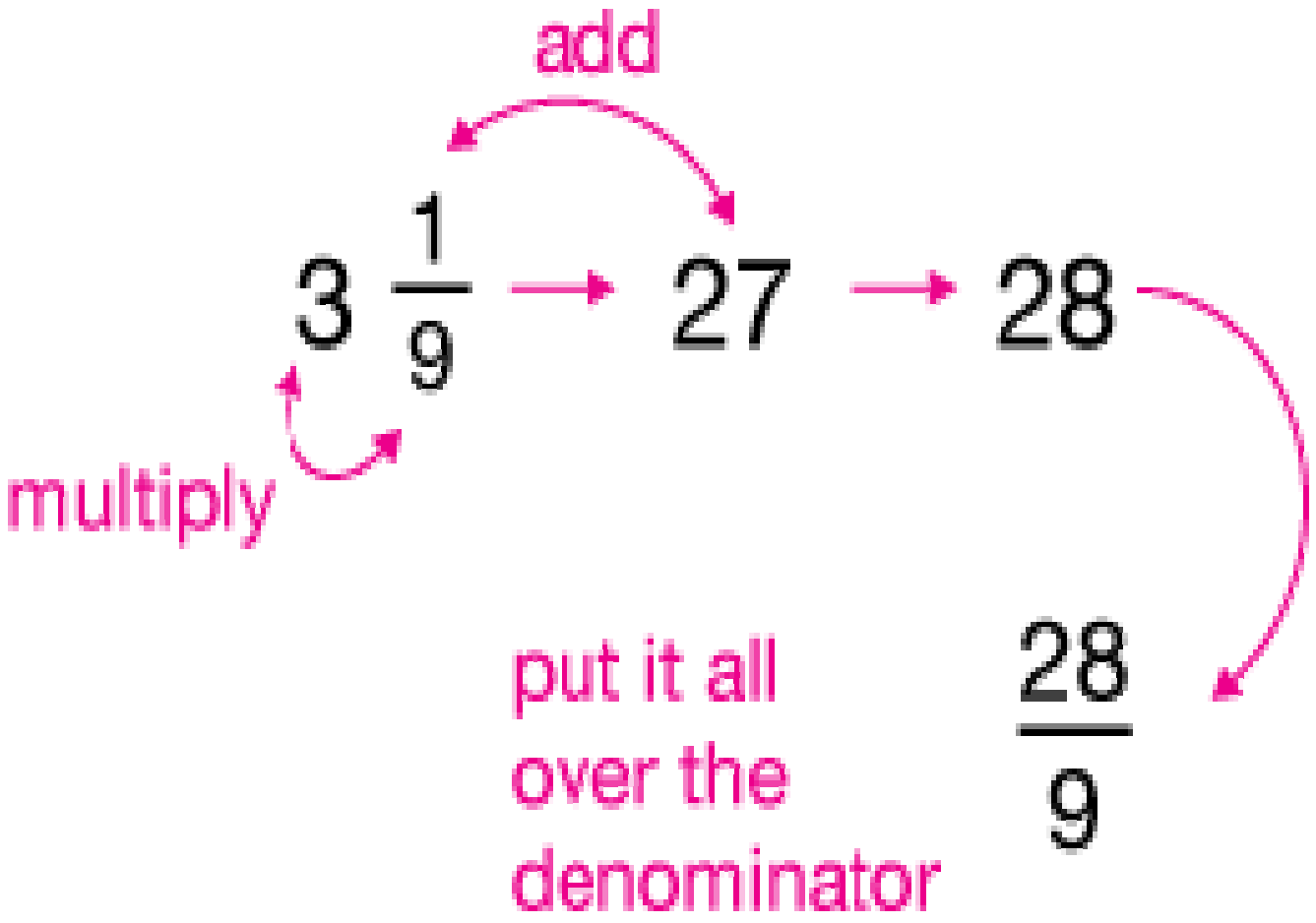
3 ← Numerator

4 ← Denominator

TYPES OF FRACTIONS



MIXED FRACTION



EXAMPLES

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

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

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

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

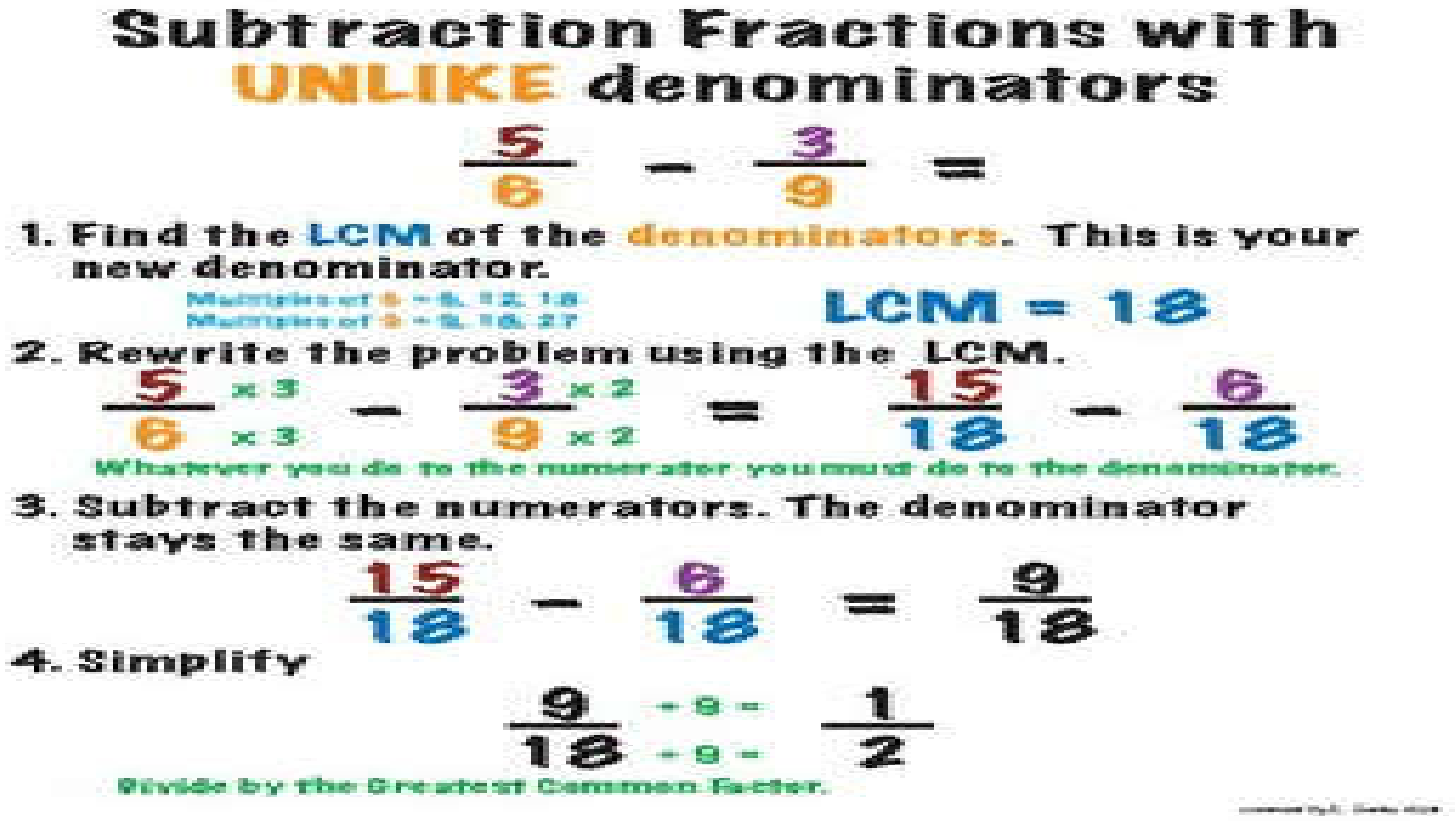
$$8\frac{5}{8} = \frac{(8 \cdot 8) + 5}{8} = \frac{64 + 5}{8} = \frac{69}{8}$$

LET US TRY THIS NOW

Write this mixed number as a top heavy fraction.

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

ADDITION AND SUBTRACTION OF FRACTION



MULTIPLING FRACTION

Multiplying fractions
3 examples

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

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

$$\frac{a+b}{c+d} \cdot \frac{e+f}{g+h} = \frac{(a+b)(c+d)}{(c+d)(e+f)}$$

$$= \frac{ac+ad+bc+bd}{ce+cf+de+df}$$

DIVION OF FRACTION

Invert the fraction that you are dividing by

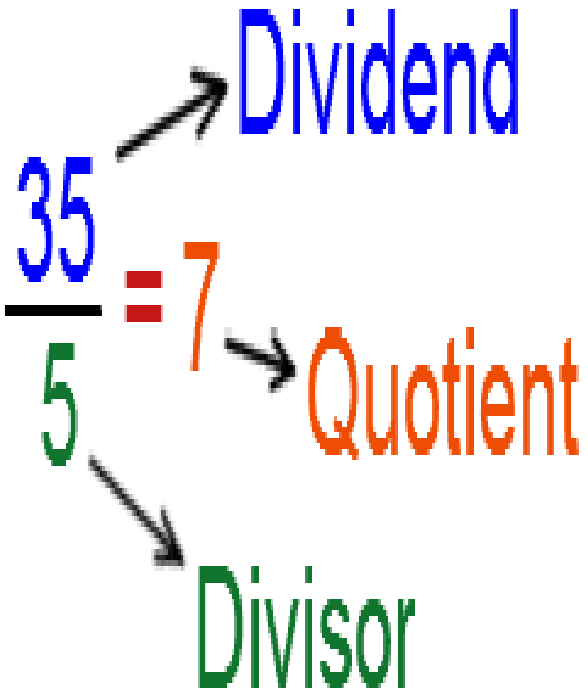
$$\frac{4}{5} \div \frac{2}{3} = \frac{4}{5} \times \frac{3}{2}$$

Multiply the numerators and denominators

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

Simplify the fraction if necessary

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



LET US TRY THIS NOW

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

PERCENTAGE

- A student scored 15 out of 6o marks in ogundigiclass assessment, what percentage is this?
- **Solution**
- $^{15}/_{60} \times 100\%$
- = 25%

LET US TRY THIS NOW

Work out

$$60\% \textit{ of } 90$$

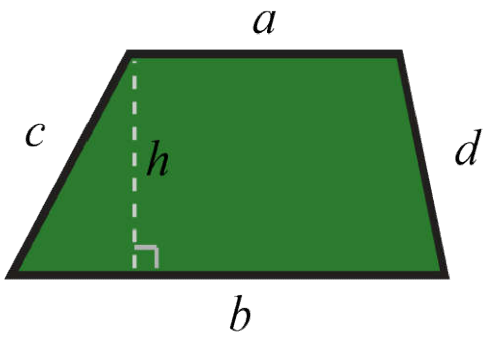
LET US TRY THIS NOW

Work out

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

PLANE SHAPES

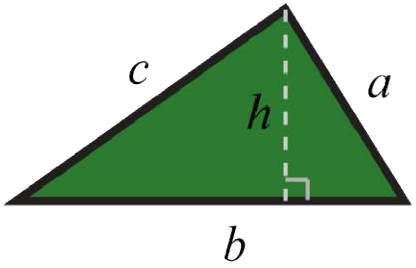
Trapezoid



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

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

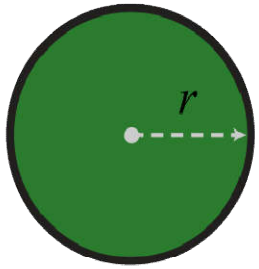
Triangle



$$P = a + b + c$$

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

Circle



$$C = 2\pi r$$

$$A = \pi r^2$$

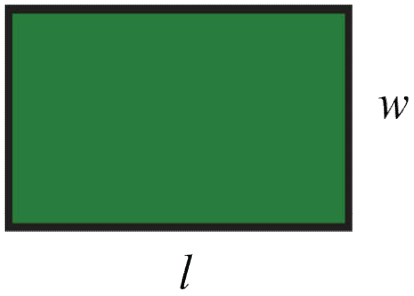
PLANE SHAPES

Square

$P = 4s$

$A = s^2$

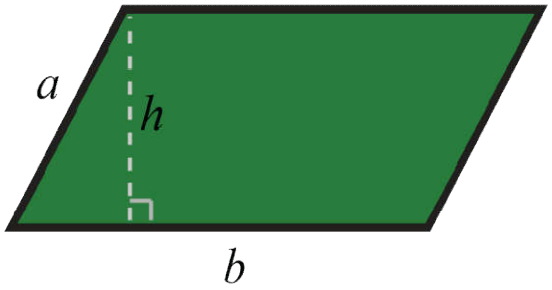
Rectangle



$P = 2l + 2w$

$A = lw$

Parallelogram

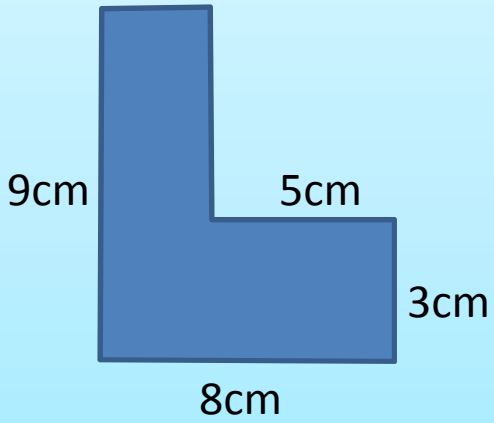


$P = 2a + 2b$

$A = bh$

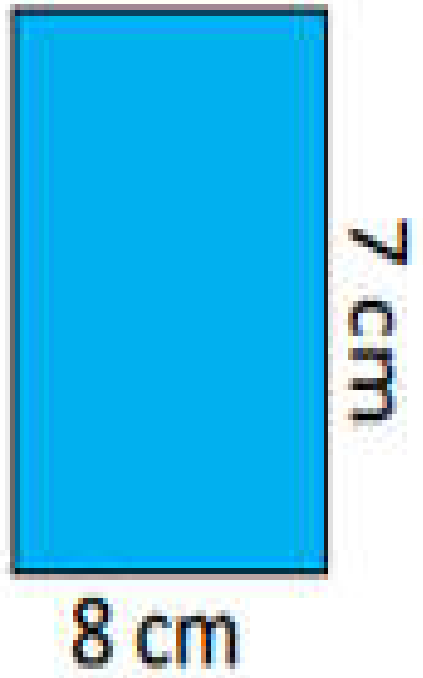
EXAMPLE

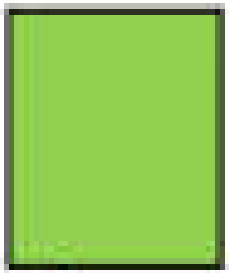
Find the perimeter of this shape

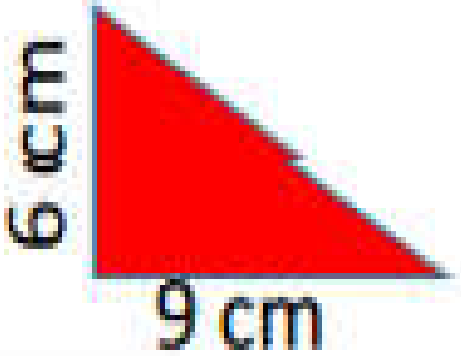


LET US TRY THIS NOW

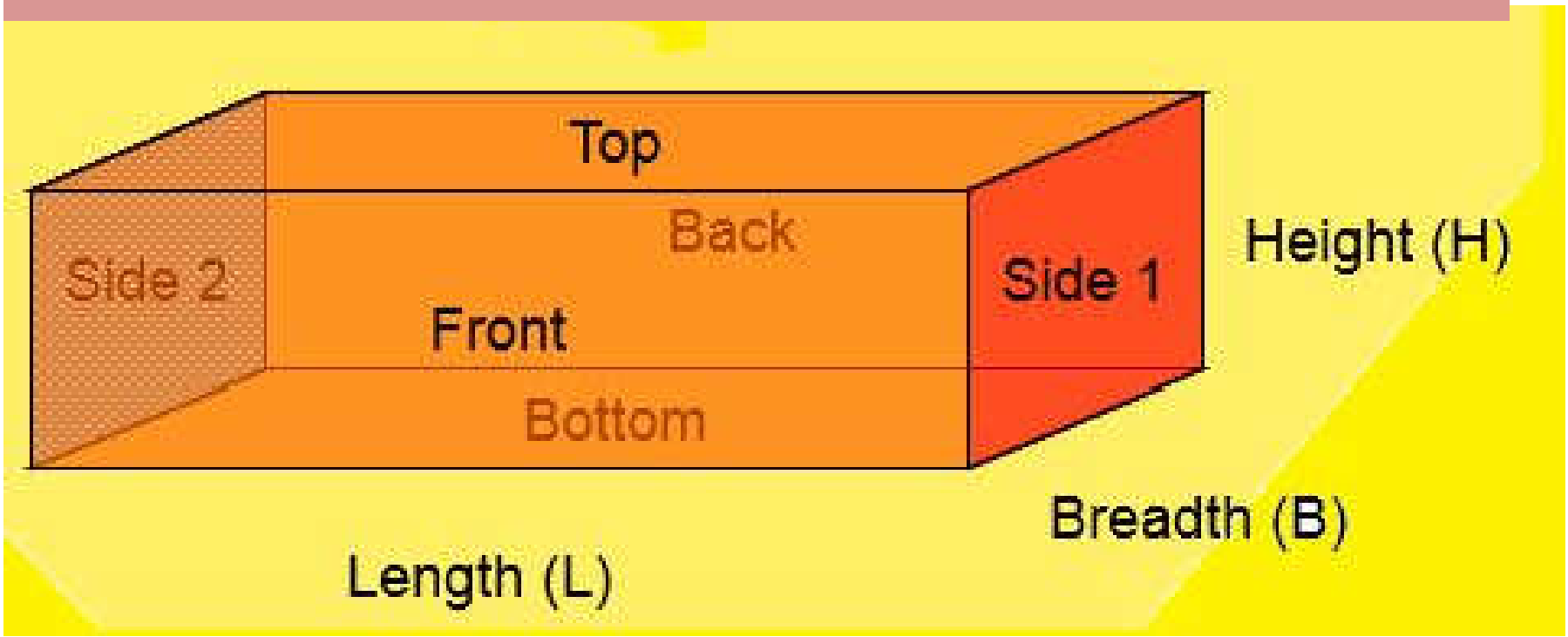
Find the area of the following shapes.



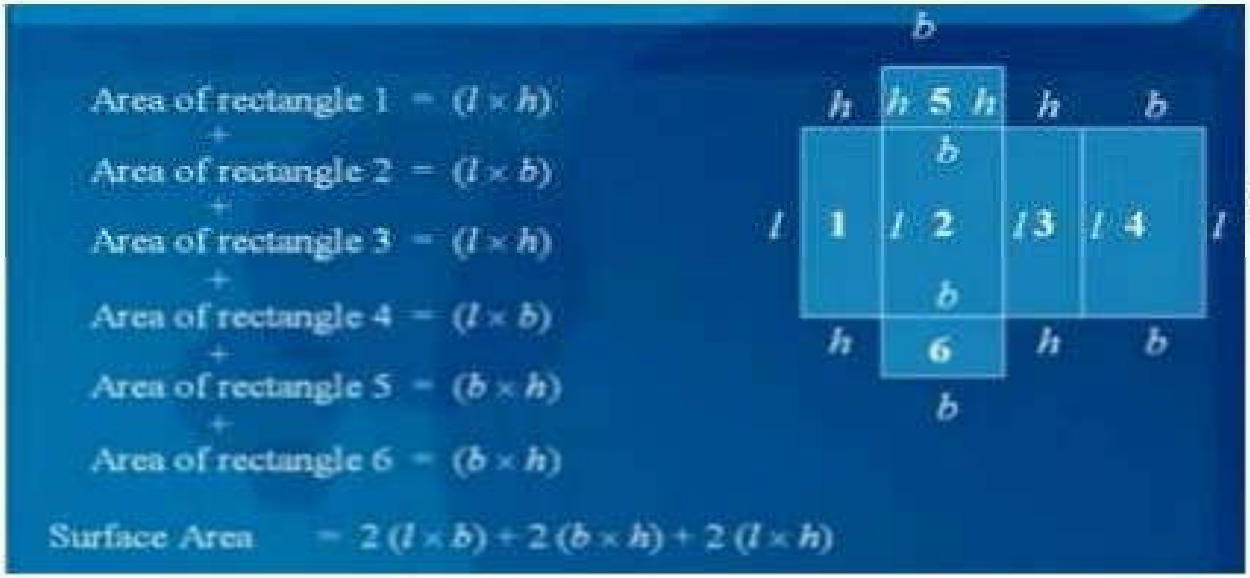




SOLID SHAPES

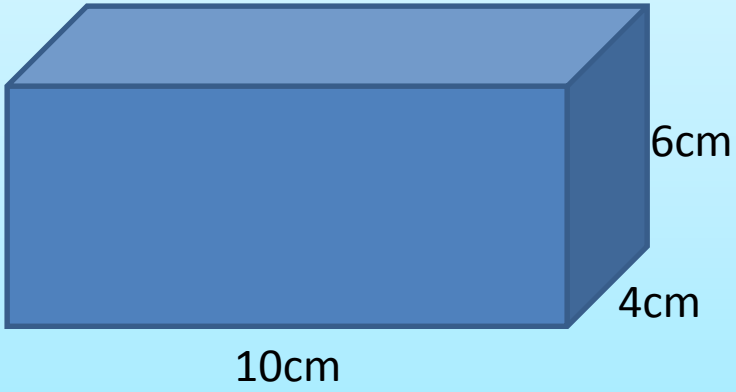


CUBOID



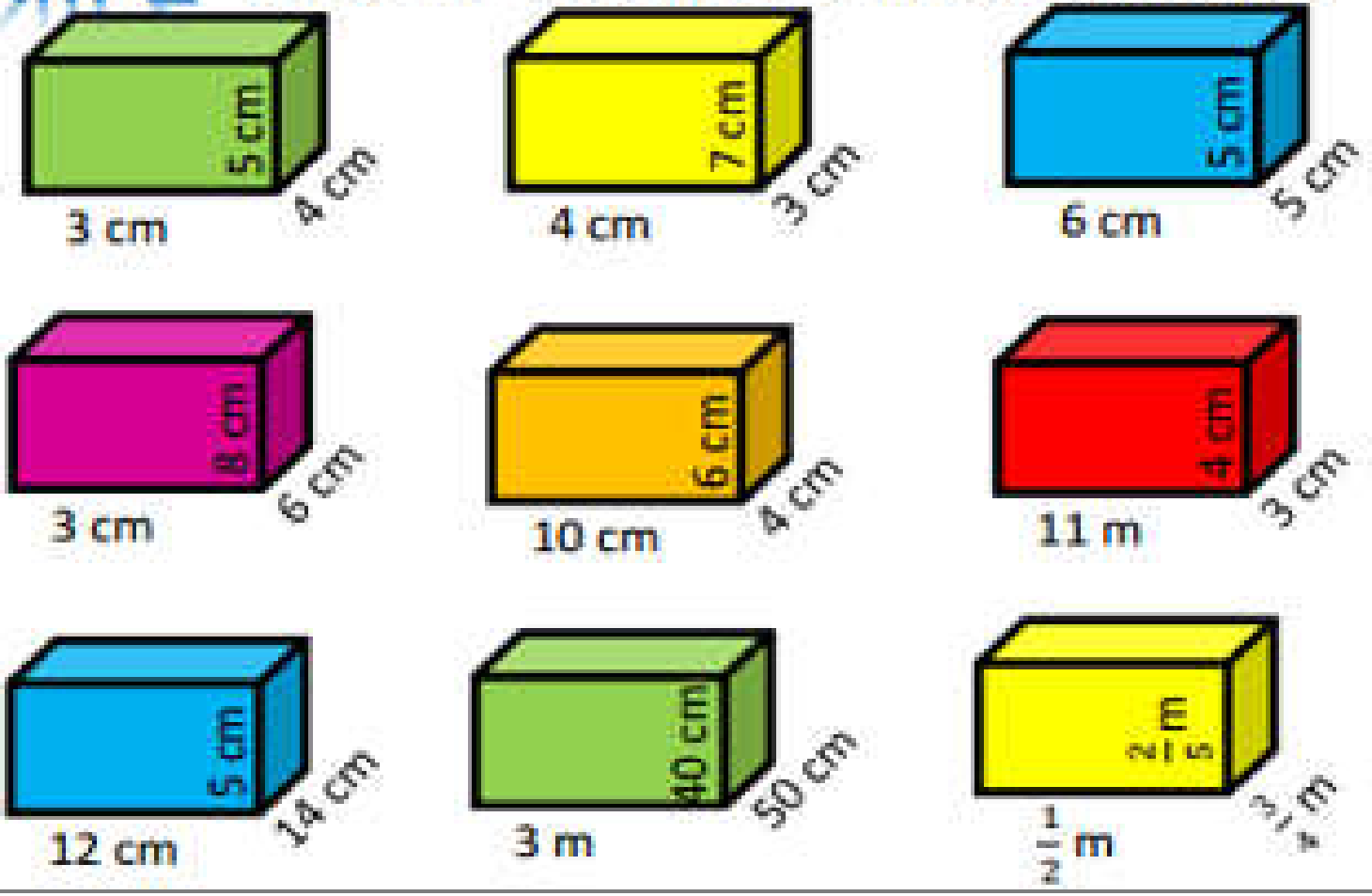
EXAMPLE

Find the volume of this cuboid

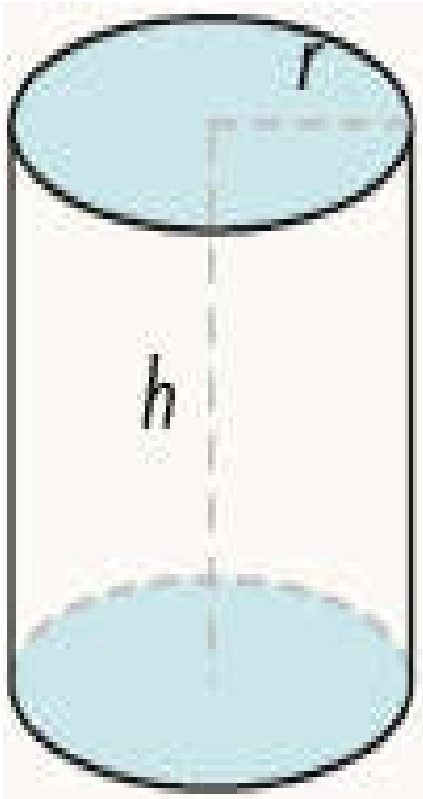


LET US TRY THIS NOW

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 pi.

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.

- 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.