LESSON

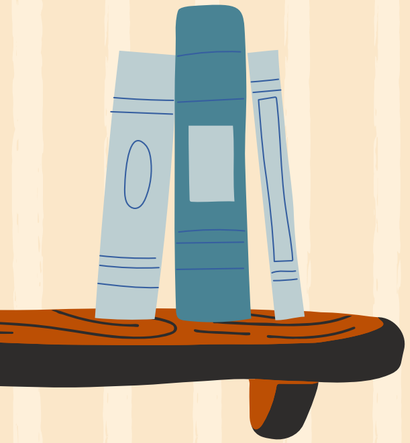
AREA OF PLANE FIGURES

Grade 6
Math

Part 1

AREA

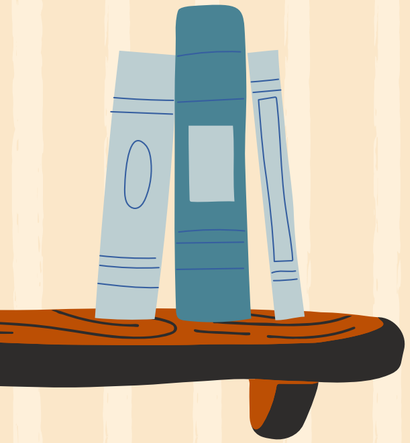
Is the number of sqr units needed to cover the surface of a plane figure.



Part 2

OBJECTIVES

- Apply appropriate formulas to calculate the area of different plane figures.
- Demonstrate proficiency in determining and comparing areas of various shapes.



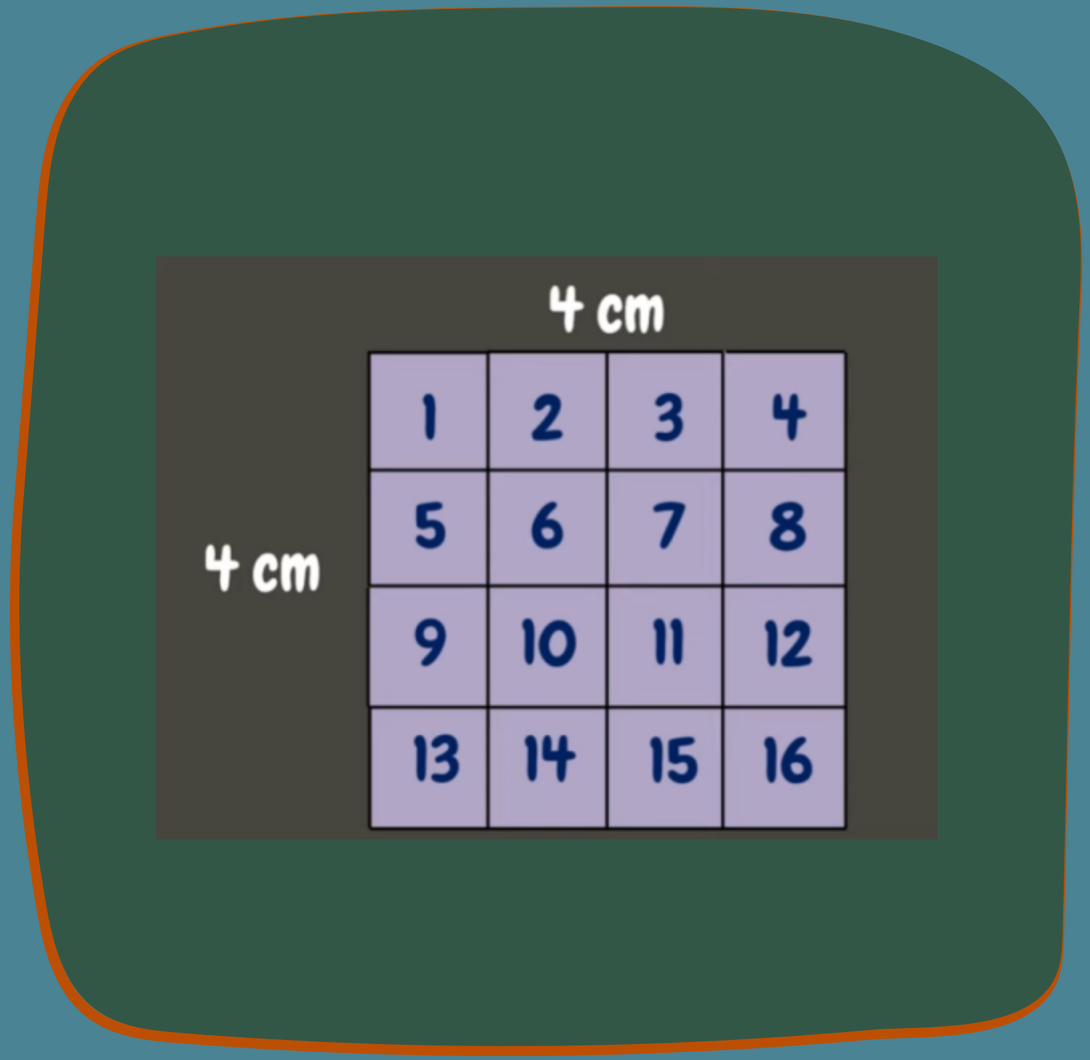
Part 3

EXAMPLES

FORMULA:

SOLVING

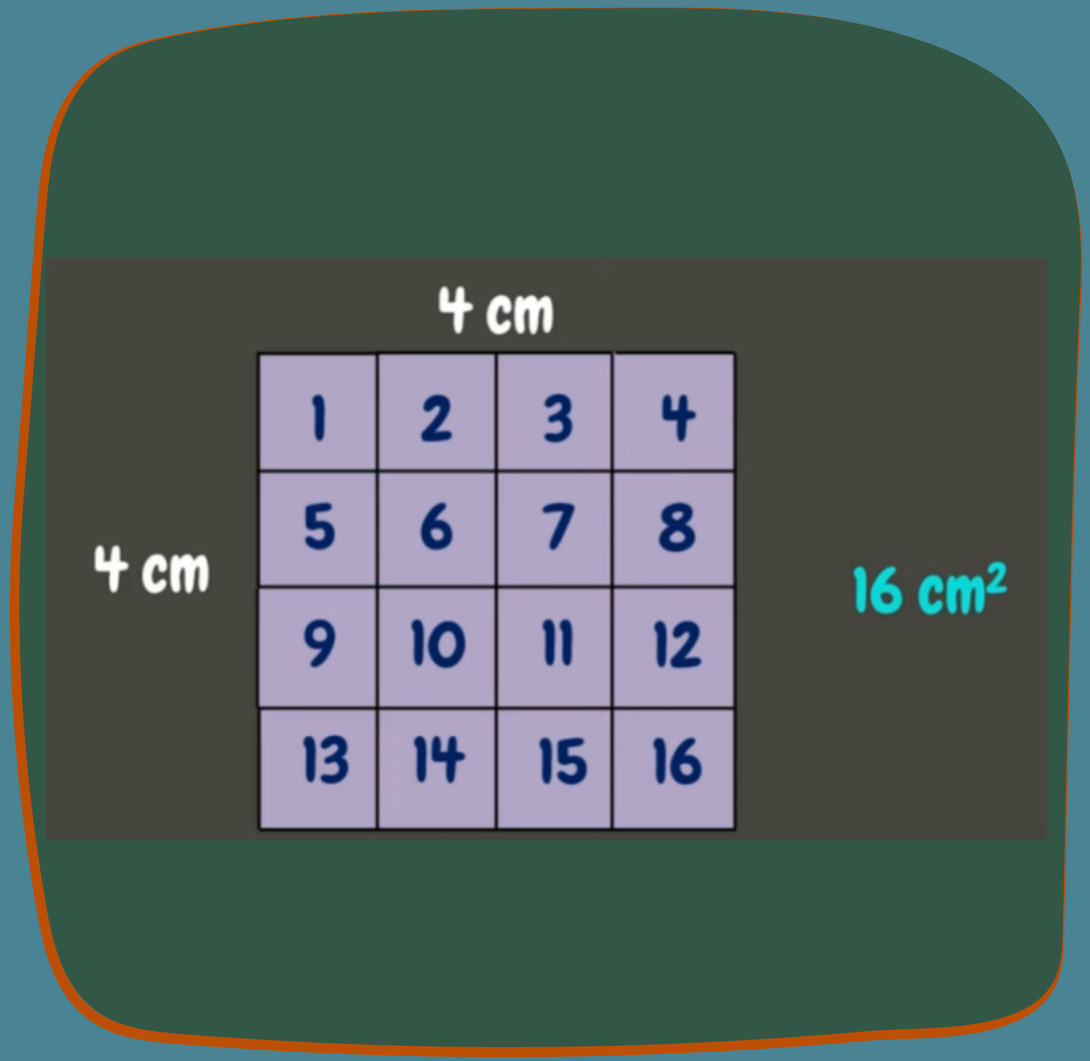
Example No. 1



Type or draw your solutions here.

SOLVING

Example No. 1



Type or draw your solutions here.

$4\text{ cm} \times 4\text{ cm}$

$= 16\text{ cm}^2$

$\text{Area} = s \times s$

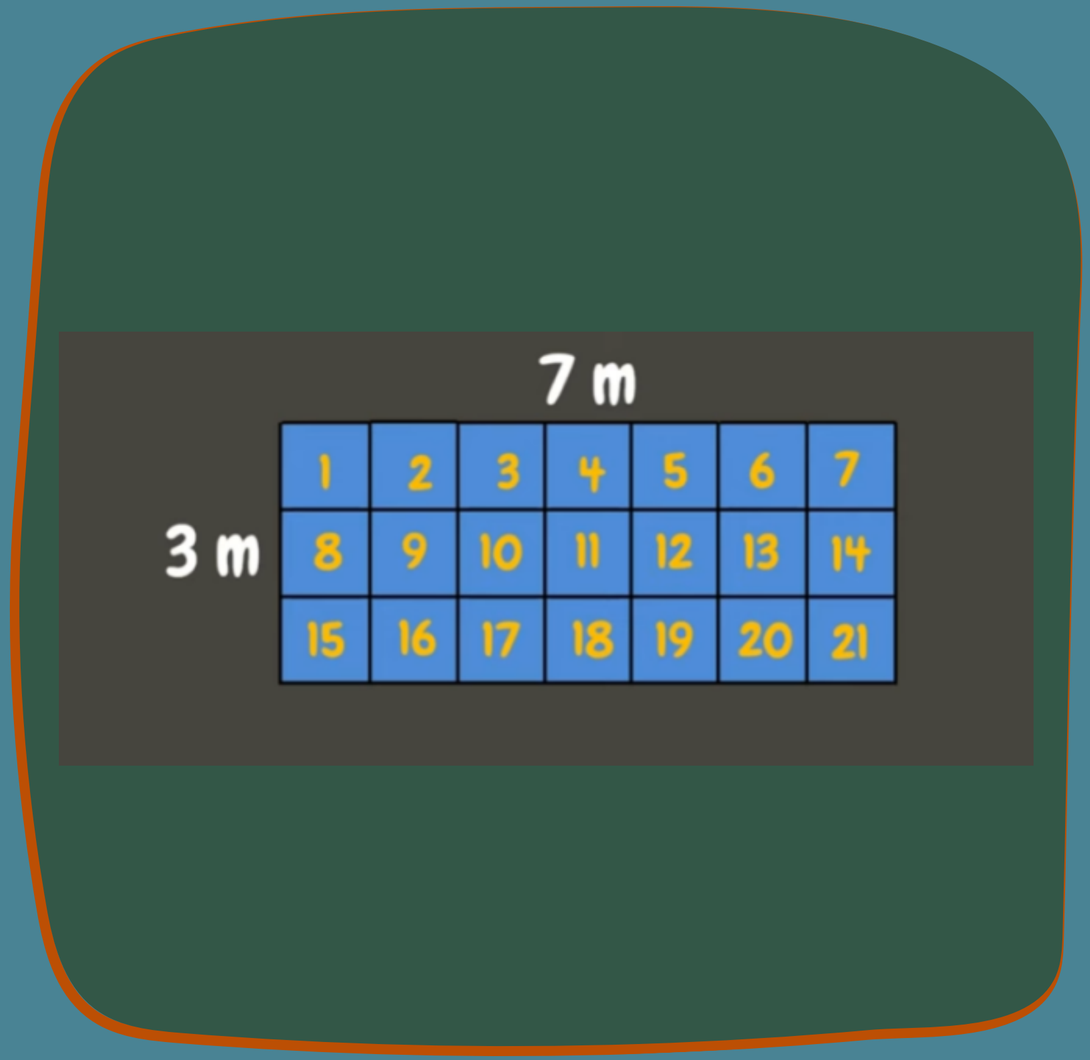
$\text{or } s^2$

FORMULA:

Area = length x width or lw

Solving

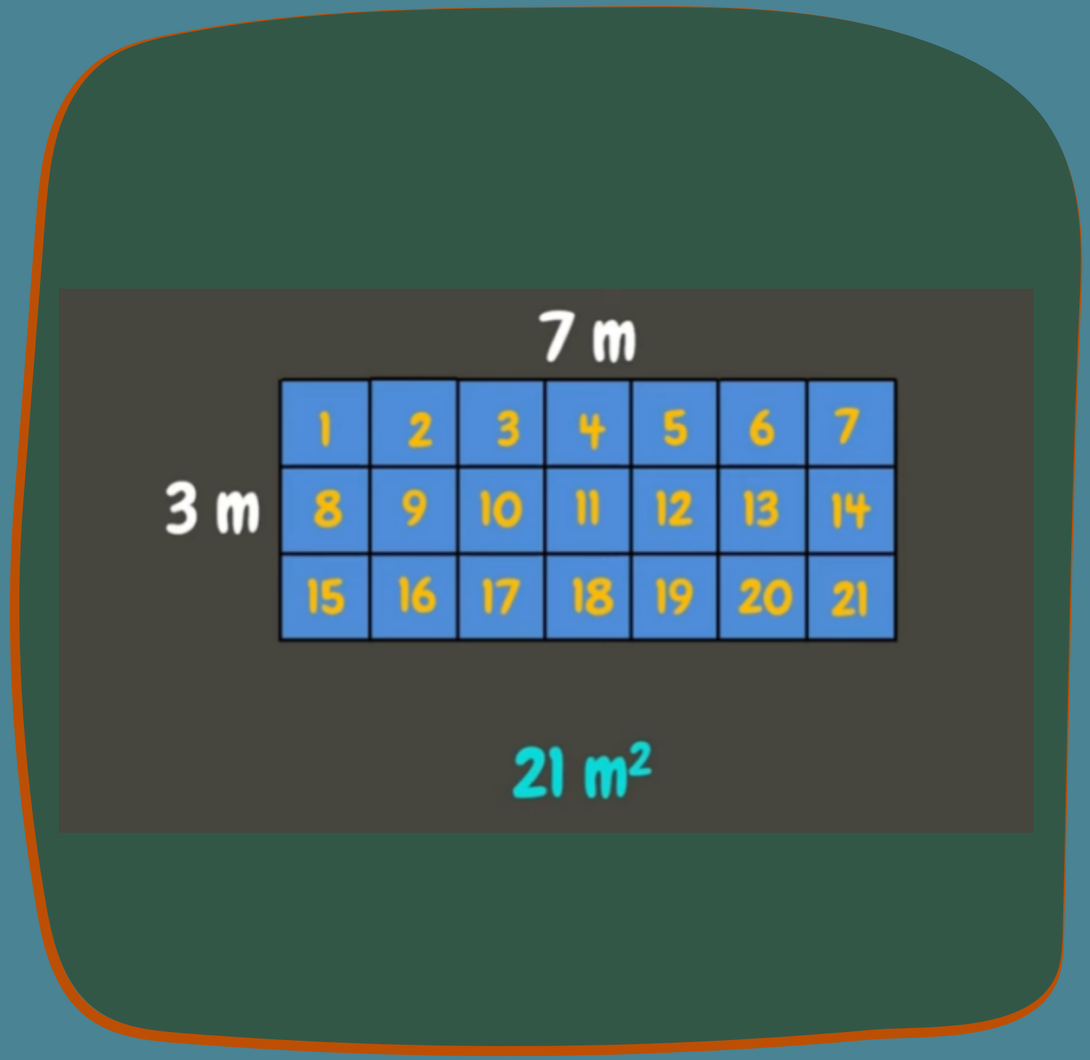
Example No. 2



Type or draw your solutions here.

Solving

Example No. 2



Type or draw your solutions here.

length (l)

width (w)

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21

3 m x 7 m

= 21 m²

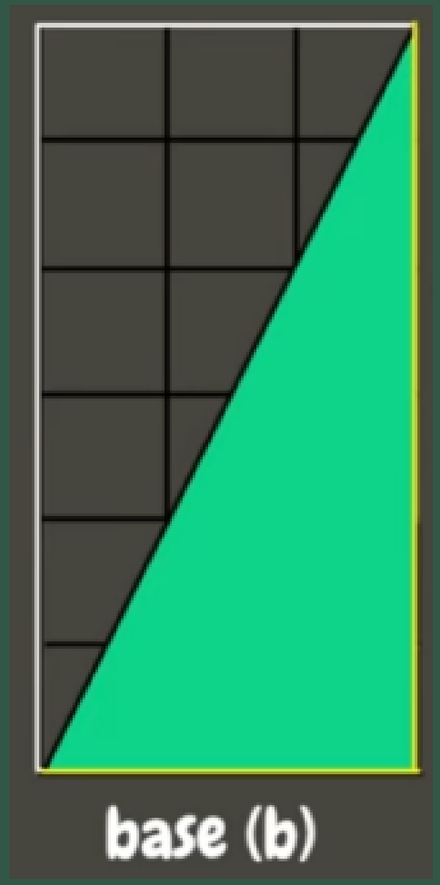
Area = length x width or lw

FORMULA:

$$\text{Area} = \frac{\text{base} \times \text{height}}{2} \quad \text{or} \quad \frac{bh}{2}$$

Solving

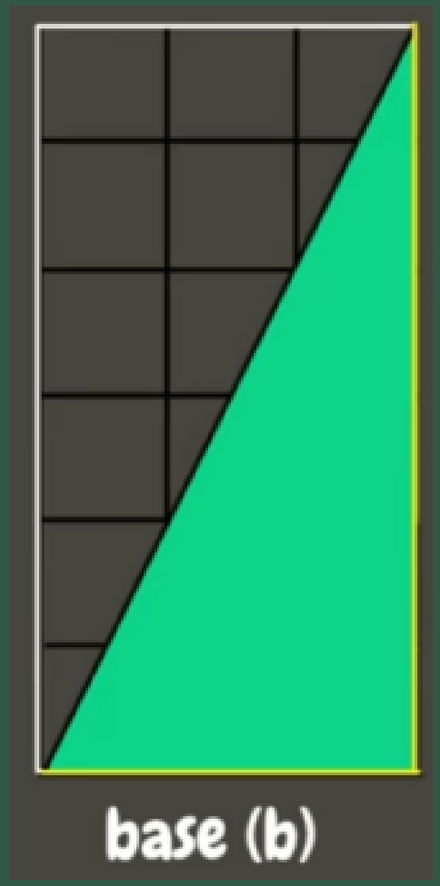
Example No. 3



Type or draw your solutions here.

Solving

Example No. 3



Type or draw your solutions here.

height (h)

$$\frac{18\ m^2}{2} = 9\ m^2$$

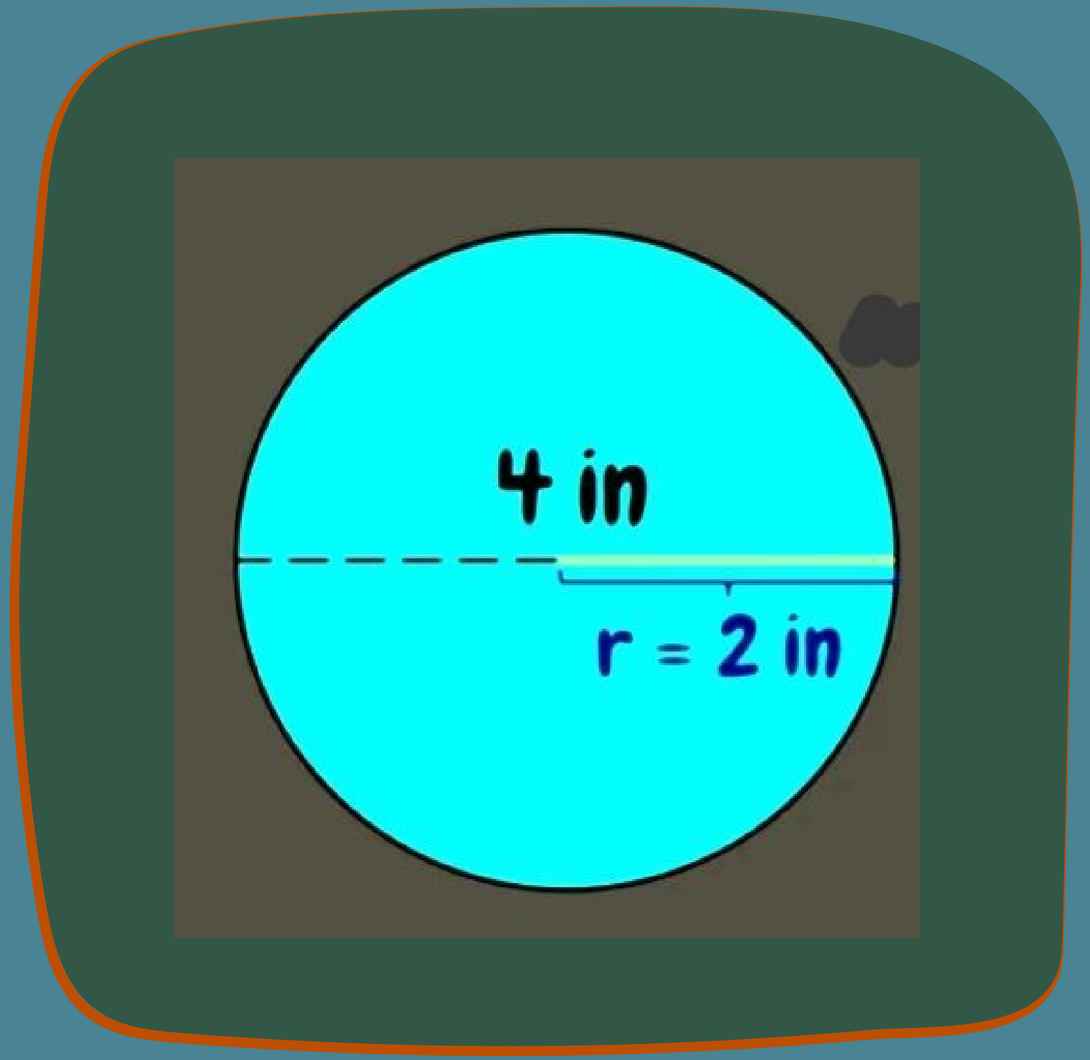
$$\frac{3\ m \times 6\ m}{2} = 9\ m^2$$

$$\text{Area} = \frac{\text{base} \times \text{height}}{2} \quad \text{or} \quad \frac{bh}{2}$$

FORMULA:

Solving

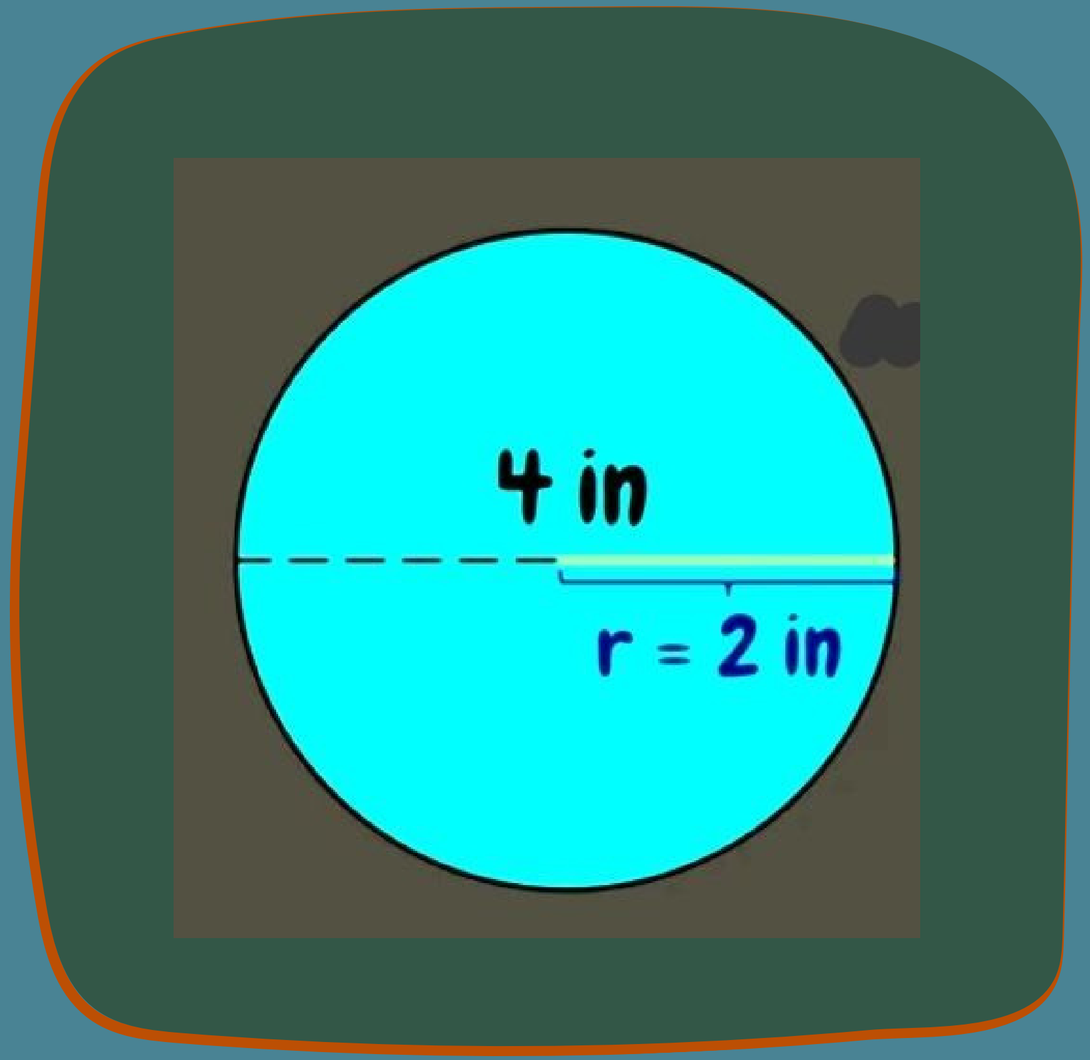
Example No. 4



Type or draw your solutions here.

Solving

Example No. 4



Type or draw your solutions here.

Area of circle = πr^2

$= (3.14)(2\text{ in} \times 2\text{ in})$

$= (3.14)(4\text{ in}^2)$

$= 12.56\text{ in}^2$

FORMULA:

$$\text{Area of semicircle} = \frac{\pi r^2}{2}$$

Solving

Example No. 5

Type or draw your solutions here.

Solving

Example No. 5

Type or draw your solutions here.

$$\text{Area of semicircle} = \frac{\pi r^2}{2}$$

$$= \frac{(3.14)(2\text{ in} \times 2\text{ in})}{2}$$

$$= \frac{12.56\text{ in}^2}{2}$$

$$= 6.28\text{ in}^2$$

FORMULA:

The area of sqr

$$A = s \cdot s$$

The area of Circle

$$A = \pi \cdot r \cdot r$$

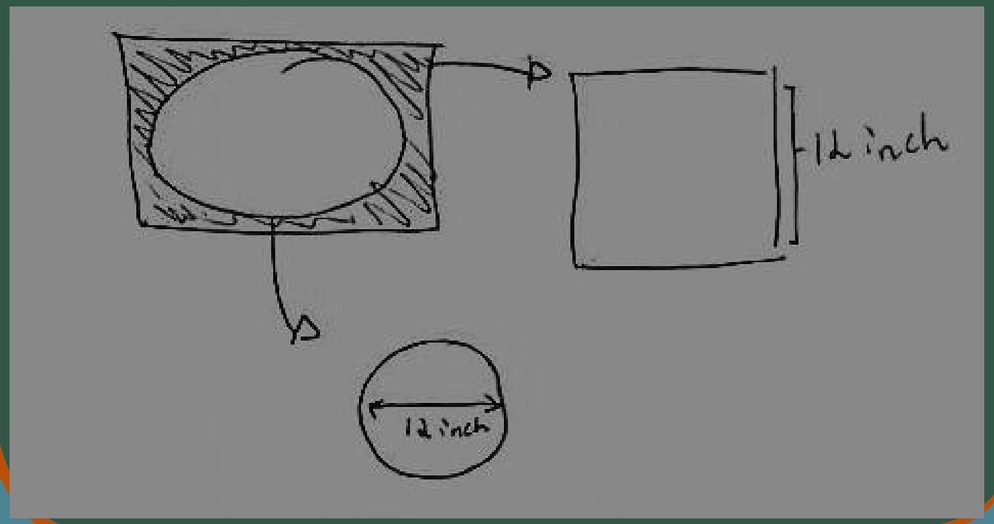
$$\text{diameter} = 2r$$

Solving

Example No. 6

How much larger is a leche flan made in a 12 inch sqr moulder than leche flan made in a 12 inch diameter circular moulder?

$\pi = 3.14$



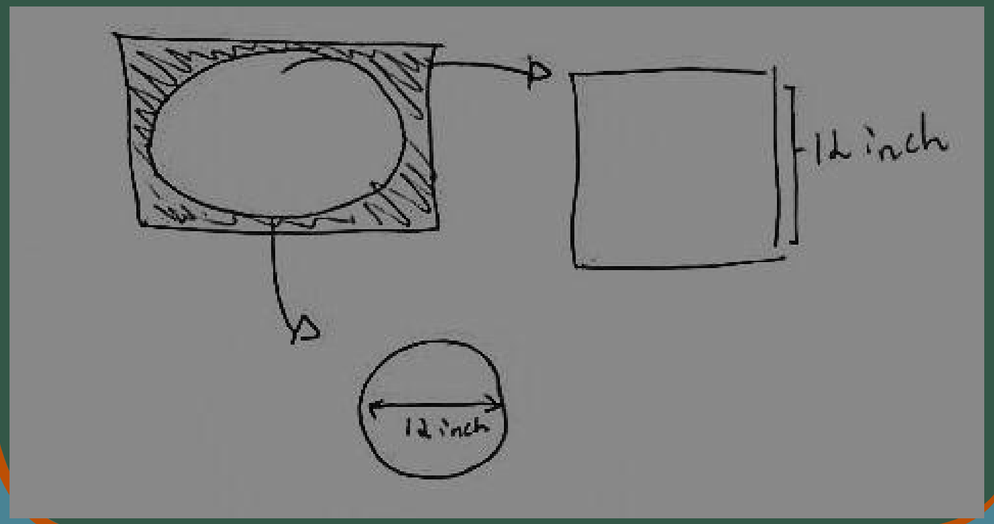
Type or draw your solutions here.

Solving

Example No. 6

How much larger is a leche flan made in a 12 inch sqr moulder than leche flan made in a 12 inch diameter circular moulder?

$\pi = 3.14$



Type or draw your solutions here.

The area of sqr

$$A = s \cdot s$$
$$= 12 \cdot 12$$
$$= 144 in^2$$

The area of Circle

$$A = \pi \cdot r \cdot r$$
$$diameter = 2r$$
$$r = \frac{diameter}{2} = \frac{12}{2} = 6$$
$$A = \pi \cdot 6 \cdot 6$$
$$= 3.14 \cdot 6 \cdot 6$$
$$A = 113.04 in^2$$

The sqr of leche flan is larger by adult

$$144 - 113.04 = 30.96 in^2$$

SEE YOU NEXT TIME