

$$2+2=4$$

$$\sqrt[n]{x}$$

+

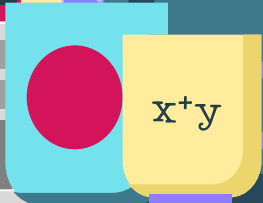
x

$$42:9$$

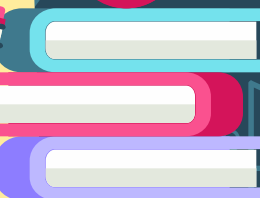
%

$$x/2y$$

-



$$x+y$$



a

# Mathematical Model

$$2+2=4$$

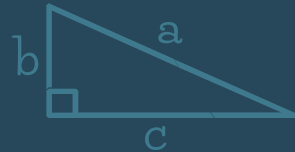
$$\sqrt[n]{X}$$



$$x/2y$$

# Problem definition

Writing mathematical models for the customer service evaluation robot arm, to identify security and risk areas and locate sensors to achieve high efficiency and achieve safety and security.



$$2+2=4$$

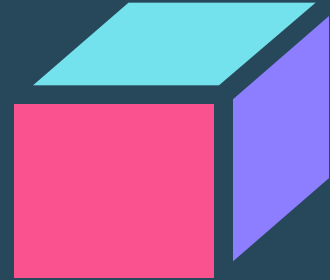
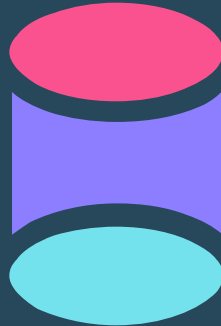
+

x

# Variables

the movement of the arm in 3D it  
will be x, y and z.

42:9



$$2+2=4$$

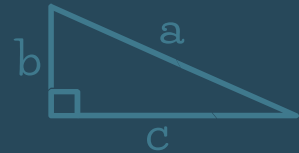
# The equation

+

x

Will use: 1/8 ball volume law( $V = (3/4) \pi r^3$ ),  
where  $r$  is the radius) for 3D.

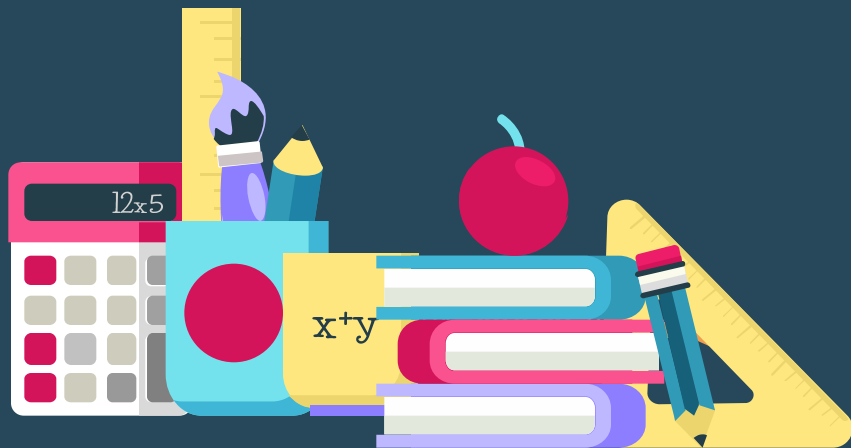
$$\sqrt[n]{X}$$



# Results

$$\sqrt[n]{X}$$

the allowed area is (  $1/8 * (3/4) \pi * 85^3$  ) =  
321555.0975 cm<sup>3</sup>.



y



%