




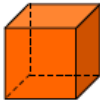
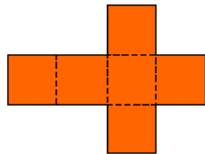
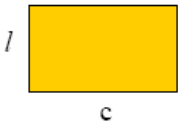
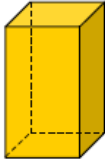
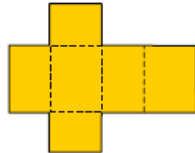
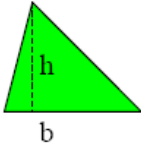
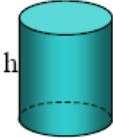
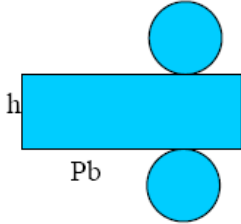
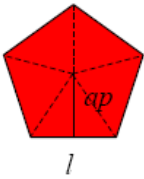
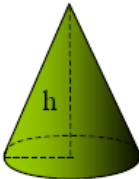
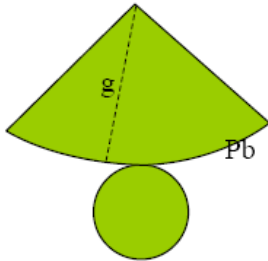
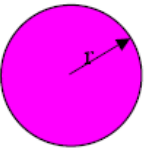

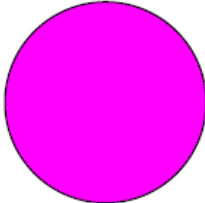
# MATEMÁTICA APLICADA

CEF OI – 1º Tipo 2

Professor João Narciso

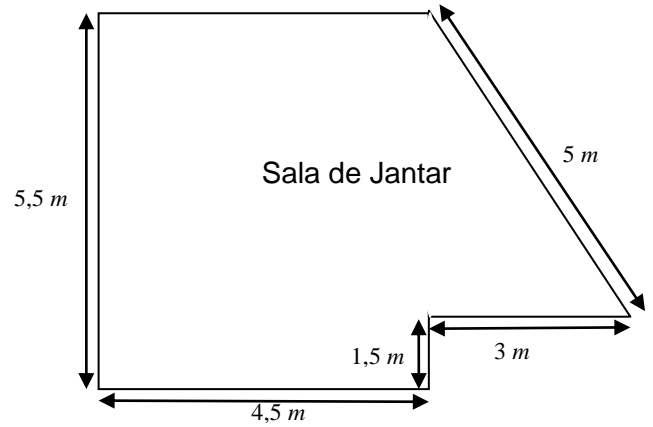
## Ficha de Trabalho 16 – Cálculo de Áreas e Volumes

### ÁREAS DE POLÍGONOS E VOLUMES DE SÓLIDOS GEOMÉTRICOS

Área e Perímetro	Volume	Planificação
<b>Quadrado</b>  $A = a \cdot a = a^2$ $P = 4a$	<b>Cubo</b>  $V = A_b \cdot h = a \cdot a \cdot a = a^3$	 $A_t = 6A_b$
<b>Rectângulo / Paralelogramo</b>  $A = c \cdot l$ ou $b \cdot h$ $P = 2c + 2l$	<b>Prisma / Paralelepípedo</b>  $V = A_b \cdot h = c \cdot l \cdot h$	 $A_t = 2A_b + P_b \cdot h$
<b>Triângulo</b>  $A = \frac{b \cdot h}{2}$ $P = \text{soma 3 lados}$	<b>Cilindro</b>  $V = A_b \cdot h$	 $A_t = 2A_b + P_b \cdot h$
<b>Pentágono, Hexágono regulares</b>  $A = \frac{l \cdot ap}{2} n$ ( $n = n^\circ$ lados) $P = \text{soma } n \text{ lados}$	<b>Cone</b>  $V = \frac{1}{3} A_b \cdot h$	 $A_t = A_b + \frac{P_b}{2} \cdot g$ (geratriz)
<b>Círculo / Circunferência</b>  $A = \pi r^2$ $P = 2\pi r$	<b>Esfera</b>  $V = \frac{4}{3} \pi r^3$	 $A_t = 4\pi r^2$

### EXERCÍCIOS DE APLICAÇÃO:

1. Imagine que a sua **sala de jantar** é conforme a figura abaixo desenhada e que pretende mudar o seu pavimento.



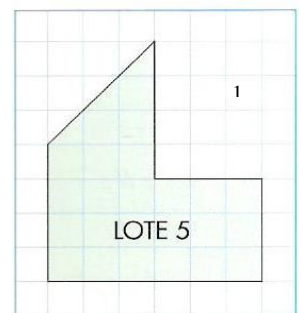
1.1. Determine a área da sala para se saber **quantos metros quadrados** de pavimento têm de se comprar.

1.2. Sabendo que o custo do pavimento a colocar é de **7,25 €** por  $m^2$ , **quanto dinheiro vai gastar na compra do pavimento para a sala?**

1.3. Imagine que pretende colocar *rodapé* na sala de jantar. **Quantos metros de rodapé** precisa?

1.4. Se o preço por cada *placa de rodapé* (com **0,4 metros** cada) for de **3 €**, **quanto dinheiro vai gastar no rodapé?**

2. Sra. Lurdes quer vender um pequeno lote de terreno (figura ao lado). Qual a área do lote?



3. Determina as **áreas coloridas** das figuras seguintes.

