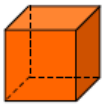
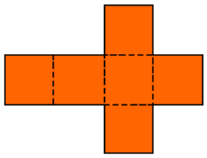
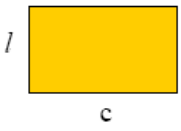
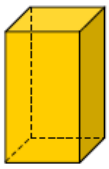
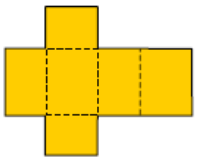
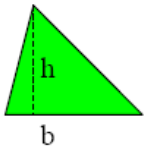
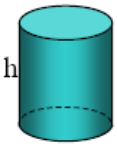
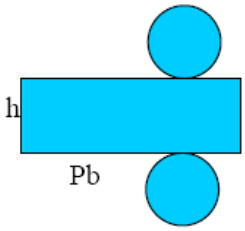
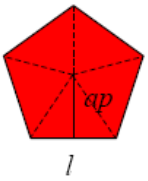
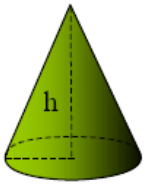
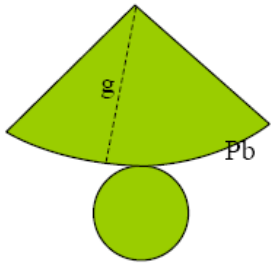
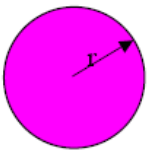
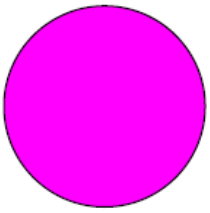
CENTRO NOVAS OPORTUNIDADES DE SANTO ANDRÉ
MATEMÁTICA PARA A VIDA

APONTAMENTOS – MV$_3$B – PERÍMETROS, ÁREAS E VOLUMES

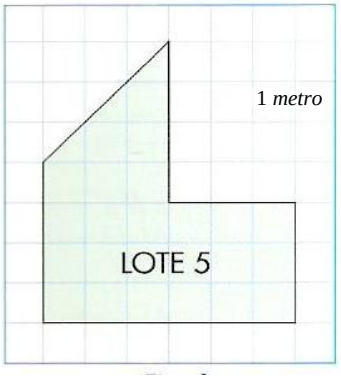
NOME:	***DATA:***

ÁREAS DE POLÍGONOS E VOLUMES DE SÓLIDOS GEOMÉTRICOS

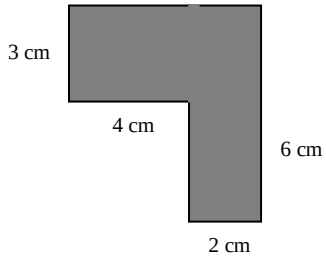
Área e Perímetro	Volume	Planificação
Quadrado  $A = a \cdot a = a^2$ $P = 4a$	**Cubo**  $V = A_b \cdot h = a \cdot a \cdot a = a^3$	 $At = 6A_b$
Rectângulo / Paralelogramo  $A = c \cdot l$ ou $b \cdot h$ $P = 2c+2l$	**Prisma / Paralelepípedo**  $V = A_b \cdot h = c \cdot l \cdot h$	 $A_t = 2A_b + P_b \cdot h$
Triângulo  $A = \frac{b.h}{2}$ P = soma 3 lados	**Cilindro**  $V = A_b \cdot h$	 $A_t = 2A_b + P_b \cdot h$
Pentágono, Hexágono regulares  $A = \frac{l.ap}{2} n$ (n = nº lados) P = soma n lados	**Cone**  $V = \frac{1}{3} A_b \cdot h$	 $A_t = A_b + \frac{P_b}{2} \cdot g$ (geratriz)
Círculo / Circunferência  $A = \pi r^2$ $P = 2\pi r$	**Esfera**  $V = 4/3 \pi r^3$	 $A_t = 4\pi r^2$

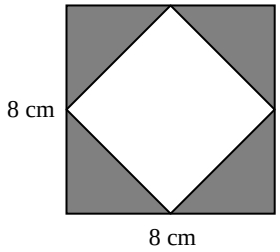
Exercícios de Aplicação:

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

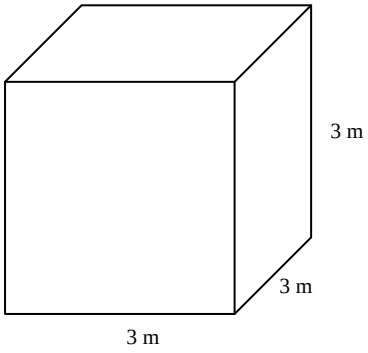


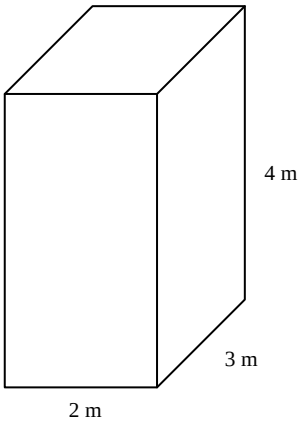
2. Determina as **áreas coloridas** das figuras seguintes.





3. As figuras seguintes representam um **cubo** e um **paralelepípedo**, respectivamente. **Determina** os seus <u>volumes</u> e diz **qual** deles tem <u>maior volume</u>.





Fórmulas para o cálculo de Áreas:

Área Rectângulo = $base \times altura$ **Área** Quadrado = $lado \times lado$ **Área** Triângulo = $\frac{base \times altura}{2}$

Fórmulas para o cálculo de Volumes:

Volume Cubo = a^3 **Volume** paralelepípedo = $a \times b \times c$