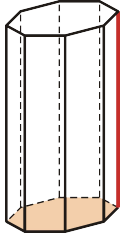


Prismen und ihre Eigenschaften Lösungen

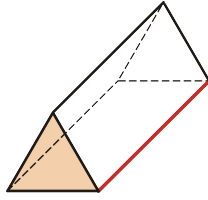
1.

a)



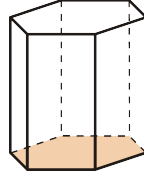
Achtseitiges
Prisma

b)



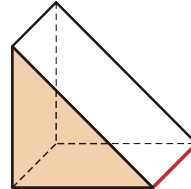
Dreieitiges
Prisma

c)



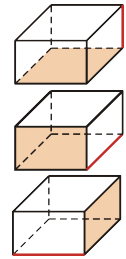
Sechseitiges
Prisma

d)



Dreieitiges
Prisma

e)



Quader (Viersei-
tiges Prisma)

2.

a)

$$V = \left(\frac{1}{2} \cdot a \cdot b\right) \cdot h \quad \text{oder}$$

$$V = (a \cdot b \cdot h) : 2$$

$$V = 12 \text{ cm}^3$$

b)

$$V = \left(\frac{1}{2} \cdot d \cdot e\right) \cdot f \quad \text{oder}$$

$$V = (d \cdot e \cdot f) : 2$$

$$V = 60 \text{ cm}^3$$

c)

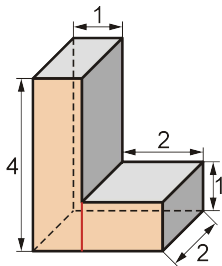
$$V = \left(\frac{1}{2} \cdot s \cdot t\right) \cdot r \quad \text{oder}$$

$$V = (s \cdot t \cdot r) : 2$$

$$V = 24 \text{ cm}^3$$

3. Berechne das Volumen V des Prismas mithilfe der Formel $V = G \cdot h$.

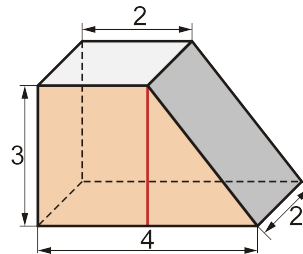
a)



$$G = 4 \cdot 1 + 2 \cdot 1 = 6 \text{ cm}^2$$

$$V = 6 \cdot 2 = 12 \text{ cm}^3$$

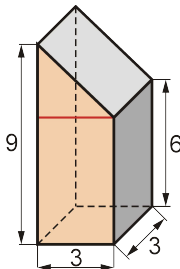
b)



$$G = 3 \cdot 2 + (3 \cdot 2) : 2 = 9 \text{ cm}^2$$

$$V = 9 \cdot 2 = 18 \text{ cm}^3$$

c)



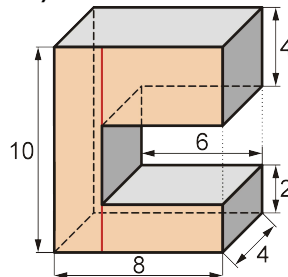
$$G = 3 \cdot 6 + (3 \cdot 3) : 2 =$$

$$= 22,5 \text{ cm}^2$$

$$V = 22,5 \cdot 3 =$$

$$= 67,5 \text{ cm}^3$$

d)



$$G = 10 \cdot 2 + 6 \cdot 2 + 6 \cdot 4 =$$

$$= 56 \text{ cm}^2$$

oder

$$G = 10 \cdot 8 - 6 \cdot 4 = 56 \text{ cm}^2$$

$$V = 56 \cdot 4 = 224 \text{ cm}^3$$