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1.

2Abase = 2x

Alateral = 4\*3x = 12x

At = 2Abase + Alateral

80 = 2x³ + 12x

2x² + 12x – 80 = 0

Delta = 12² - 4\*2\*(-80)

Delta = 144 + 640

Delta = 784

X1 = -12 + / 2\*2

X1 = -12 + 28 / 2\*2

**X1 = 4 m**

X2 = -12 - / 2\*2

X2 = -12 - 28 / 2\*2

X2 = -10 m

2.

24 = 2l²/2

48 = 3l²

48/3 = l²

16 = l²

l² = 16 /

l =

l = 4

Como são 6 retângulos

Alateral = 6\*l\*h

Alateral = 6\*4\*2

**Alateral = 48 cm²**

3.

Abase = 3l² / 2

Abase = 3\*2² / 2

Abase = 12 / 2

Abase = 6

Alateral = 6\*2

Alateral = 12

At = 2 \* 6 + 12

At = 12 + 12

**At = 24 (B)**

4.

Dividindo o trapézio em 2 triângulos e um retângulo

a + 2 + a = 8

2a = 8-2

2a = 6

a = 6/2 = 3

5² = 3² + x²

25 = 9 + x²

16 = x²

x = = 4

Abase = (B+b)x/2

Abase = (8+2)4/2

Abase = 20

v = Abase \* hprisma

v = 20 \* 5

**v = 100 m² (D)**

5.

B + rg = 15

H + rg = 10

Hprisma = 10

Abase = 15\*10/2

Abase = 150/2

Abase = 75

v = Abase \* hprisma

v = 75\*10

**v = 750 m³ (C)**

6.

At = 4x²

4x² = 2xy + 2xz + 2yz

4x² = 2(xy + xz + yz)

2x² = xy + xz + yz

Como z = 2y

2x² = xy + x \* 2y + y \* 2y

2x² = 3xy + 2y²

2y² + 3xy – 2x² = 0

Delta = (3x)² -4 \* 2 \* (-2x²)

Delta = 9x² + 16x²

Delta = 25x²

y = -3x ± / 2 \* 2

y = -3x ± 5x / 4

y = -3x + 5x / 4 = 2x/4 = x/2

y = -3x - 5x / 4 = -8x/4 = -2x

z = 2 \* x/2

z = x

v = xyz

v = x\*x/2\*x

**v = x³/2 (C)**

1.

x = 51 – (2\*0,5)

x = 51 – 1

x = 50 cm

h = 12,5 – 0,5

h = 12 cm

largura = 26 – 1

largura = 25 cm

V = x \* largura \* h

V = 50 \* 25 \* 12

V = 15000 cm³

**V = 15000/1000000 = 0,015 m² (A)**

2.

72 = 6a²

72 / 6 = a²

a² = 12

a =

a = 2

d = 2

**d = 2\*3 = 6 (B)**

3.

V = a³

V = 0,5³

V = 0,125 m³

V em litros = 0,125 \* 1000

V em litros = 125 L

**1 + 125 = 1,125 m (E)**

4.

V = a³

V = 1m³

V = 1\*1000

V = 1000 L

Vlr = 1000 – 1

Vlr = 999 L

1m ----- 1000 L

(1m-x) ----- 999 L

999 = 1000 – 1000x

-1000x = -1 (-1)

1000x = 1

**X = 1/1000 = 0,001 m**

5.

Considerando medidas 2, 4 e 5 cm

V1 = 2\*4\*5

V1 = 40 cm²

V2 = 2\*(2\*4)\*(5\*2)

V2 = 2 \* 8 \* 10

V2 = 160 cm³

NV = V2 / V1

NV = 160 / 40

**NV = 4V (C)**

6.

Vp = Vc

Abase \* h = a³

L² h/4 = a³

(4)² \* \* h / 4 = (4)³

4 \* 4 \* \* h / 4 = 4 \* 4 \* 4

4 \* 4 \* \* h = 16 \* 4 \* 4

\* h = 16

h = 16 /

h = 16

Aprisma = 2\*Abase + Alateral

Aprisma = 2\* (4)² \* / 4 + 3\*16\*4√3

Aprisma = 2 \* 48 / 4 + 192

Aprisma = 24 + 192

**Aprisma = 216 (D)**