

1)

V1: cone;

V2: semiesfera

V3: cone.

**b)  $V1 < V3 < V2$**

2)

$$7^2 = 3^2 + d^2$$

$$49 = 9 + d^2$$

$$d^2 = 40$$

$$d = 2\sqrt{10}$$

$$2\sqrt{10} / 2$$

**e)  $\sqrt{10}$**

3)

**c)  $3\pi R^2 / 4$**

4)

$$R = 6 \text{ dm}$$

$$(x+3)^2 = 3^2 + (x+6/2)^2$$

$$x^2 + 6x + 9 = 9 + x^2 + 12x + 36/4$$

$$3x^2 + 12x - 36 = 0$$

$$x^2 + 4x - 12 = 0$$

Soma produto

**c) 8**

5)

$$24^3 / 12^3 = 2^3 = 8.$$

6)

7)

$$1130,4 \text{ cm}^3$$

$$1243,44 \text{ cm}^3$$

$$113,04 = 4 \cdot 3,14 \cdot R^3 / 3 = \mathbf{3}$$