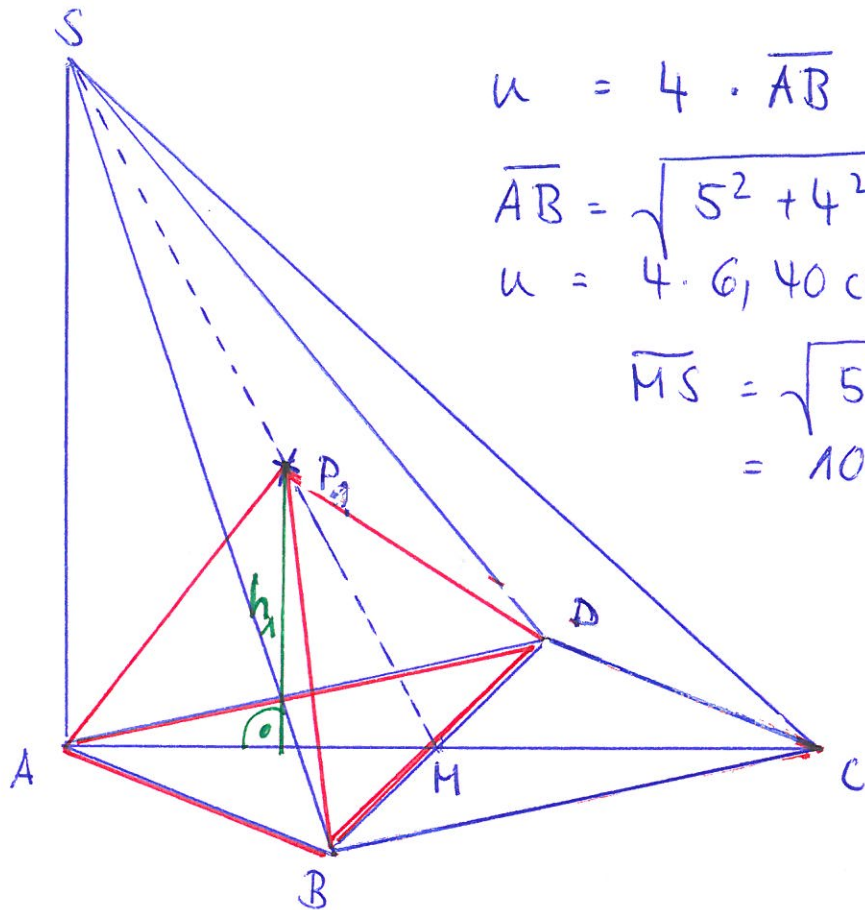


geg:  $\overline{AC} = 10 \text{ cm}$ ;  $\overline{BD} = 8 \text{ cm}$ ;  $h = 9 \text{ cm}$   
Raute!

1.)



$$u = 4 \cdot \overline{AB}$$

$$\overline{AB} = \sqrt{5^2 + 4^2} \text{ cm} = 6,40 \text{ cm}$$

$$u = 4 \cdot 6,40 \text{ cm} = 25,6 \text{ cm}$$

$$\begin{aligned} \overline{MS} &= \sqrt{5^2 + 9^2} \text{ cm} \\ &= 10,30 \text{ cm} \end{aligned}$$

2.  $x_1 = 3 \Rightarrow \text{ABDP}_1$

$$\overline{SP_n} = 2x$$

$$\overline{SP_n} = \overline{MS}$$

$$2x = 10,30 \text{ cm} \quad | :2$$

$$x = 5,15 \text{ cm}$$

Intervall:  $x \in [0; 5,15[$  (oder:  $0 \leq x < 5,15 \text{ cm}$ )

3.  $V_{\text{ges}} = \frac{1}{3} \cdot \frac{1}{2} \cdot \overline{AC} \cdot \overline{BD} \cdot h = \frac{1}{3} \cdot \frac{1}{2} \cdot 10 \text{ cm} \cdot 8 \text{ cm} \cdot 9 \text{ cm}$

$$V_{\text{ges}} = 120 \text{ cm}^3$$

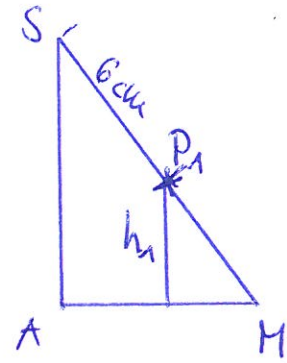
$$V_{\text{ABDP}_1} = \frac{1}{3} \cdot A_{\text{ABD}} \cdot h_1$$

$$A_{\text{ABD}} = \frac{1}{2} \cdot \overline{BD} \cdot \overline{AM} = \frac{1}{2} \cdot 8 \text{ cm} \cdot 5 \text{ cm} = 20 \text{ cm}^2$$

$$\frac{h_1}{AS} = \frac{MP_1}{MS} \quad ; \quad MP_1 = MS - 6 \text{ cm} = 4,30 \text{ cm}$$

$$\frac{h_1}{9 \text{ cm}} = \frac{4,30 \text{ cm}}{10,30 \text{ cm}} \quad | \cdot 9 \text{ cm}$$

$$h_1 = \frac{9 \text{ cm} \cdot 4,30 \text{ cm}}{10,30 \text{ cm}} = 3,76 \text{ cm}$$



$$V_{ABDP_1} = \frac{1}{3} \cdot 20 \text{ cm}^2 \cdot 3,76 \text{ cm} = 25,07 \text{ cm}^3$$

$$\rho = \frac{25,07 \text{ cm}^3}{120 \text{ cm}^3} \cdot 100\% = 20,89\%$$

$$4.) \quad 7 = \sqrt{4x^2 - 31,48x + 81,03} \quad |^2$$

$$49 = 4x^2 - 31,48x + 81,03 \quad | -49$$

$$0 = 4x^2 - 31,48x + 32,03$$

$$\text{EQUA: } a = 4 \quad ; \quad b = -31,48 \quad ; \quad c = 32,03$$

$$(x_1 = 6,67 \quad \vee) \quad x_2 = 1,20$$