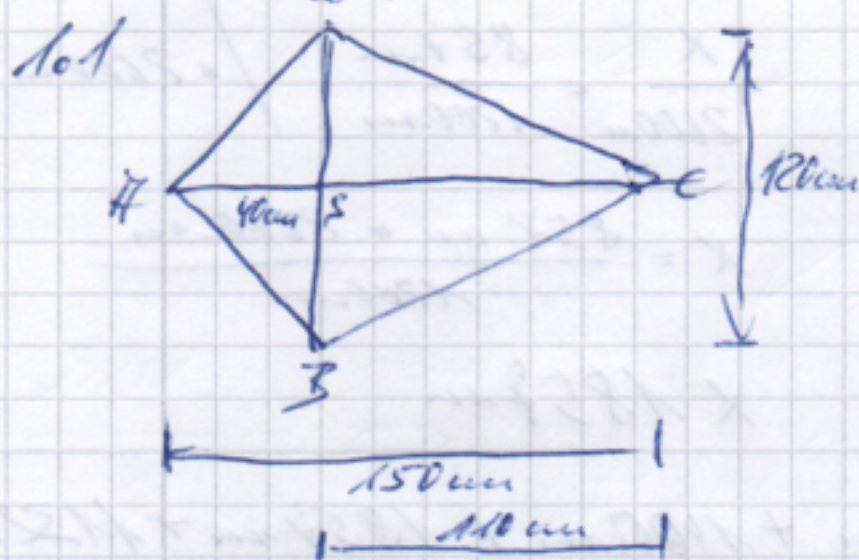


Lösungen Wahlprüfung 1 Trigonometrie



$$\overline{HD}^2 = (40\text{cm})^2 + (60\text{cm})^2$$

$$= 5200 \text{ cm}^2 / \sqrt{}$$

$$\overline{HD} = \underline{\underline{72,1 \text{ cm}}}$$

$$\overline{DC}^2 = (60\text{cm})^2 + (110\text{cm})^2$$

$$= 15700 \text{ cm}^2 / \sqrt{}$$

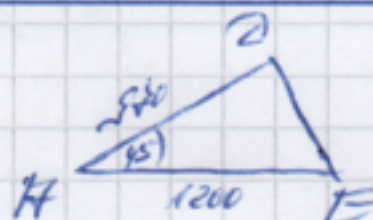
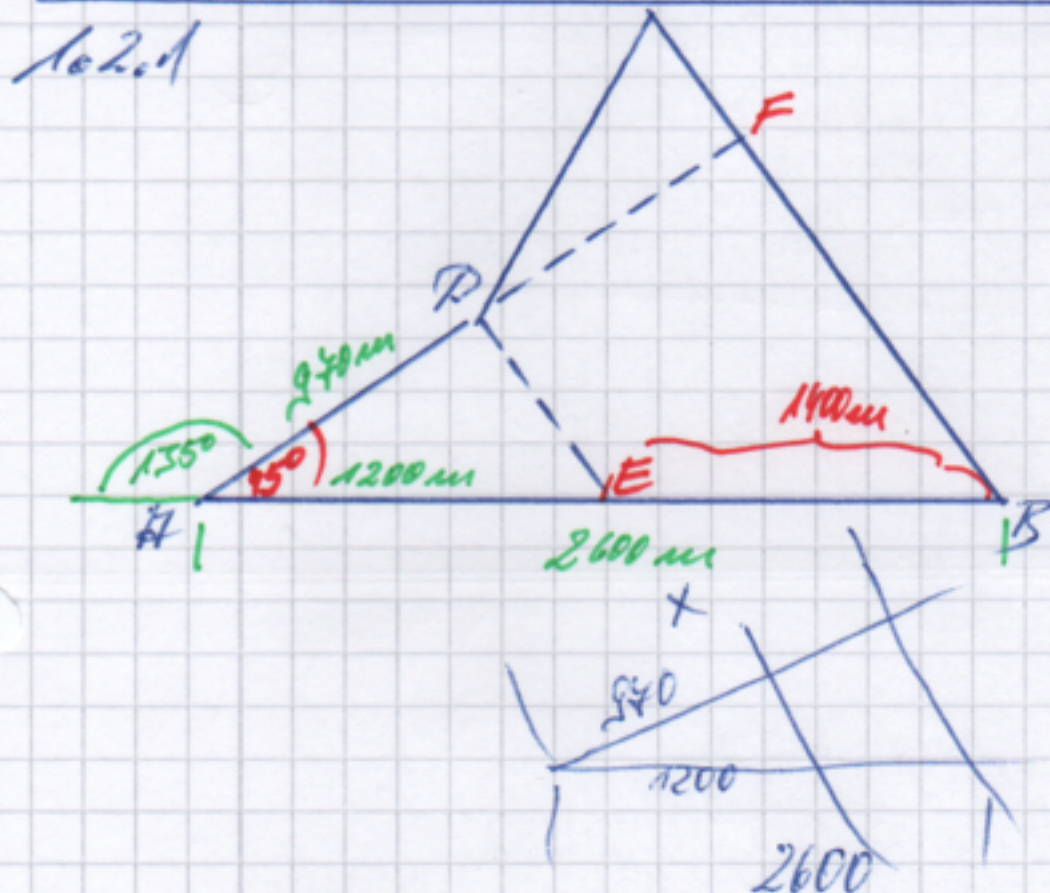
$$\overline{DC} = \underline{\underline{125,3 \text{ cm}}}$$

$$\cos \beta = \frac{(\overline{HD})^2 + (\overline{DC})^2 - (\overline{HC})^2}{2 \cdot \overline{HD} \cdot \overline{DC}}$$

$$= -0,0886 \dots$$

$$\Rightarrow \beta = \underline{\underline{95,1^\circ}}$$

10.2 $A = \frac{e \cdot f}{2} = \frac{120\text{cm} \cdot 150\text{cm}}{2} = \underline{\underline{9000 \text{ cm}^2}}$



$$(\overline{DE})^2 = (\overline{AD})^2 + (\overline{DB})^2 - 2 \cdot \overline{AD} \cdot \overline{DB} \cdot \cos 135^\circ$$

$$= 734755,4 \dots / \sqrt{}$$

$$\overline{DE} = \underline{\underline{857 \text{ m}}}$$

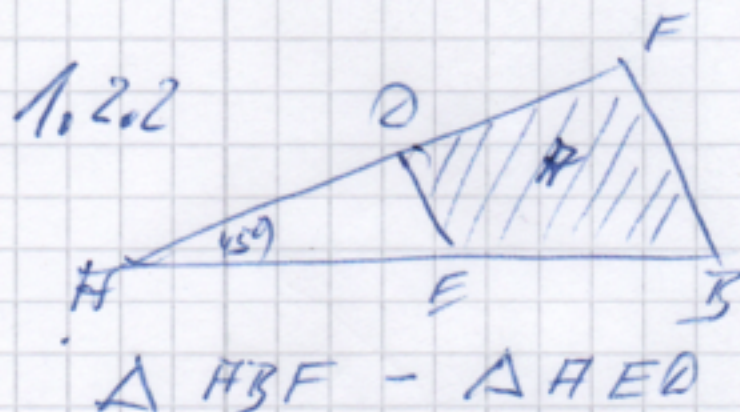
$$\frac{x}{2600} = \frac{970}{1200} \quad | \cdot 2600$$

$$x = \frac{970 \cdot 2600}{1200}$$

$$= 2102 \text{ m}$$

$$\downarrow = 970 \text{ m}$$

$$\overline{DF} = \underline{\underline{1132 \text{ m}}}$$



$$A = 0,5 \cdot 2600\text{m} \cdot 2102\text{m} \cdot \sin 45^\circ = 1932240 \text{ m}^2$$

$$- A = 0,5 \cdot 1200\text{m} \cdot 970\text{m} \cdot \sin 45^\circ = 411536 \text{ m}^2$$

$$= \underline{\underline{1520704 \text{ m}^2}}$$