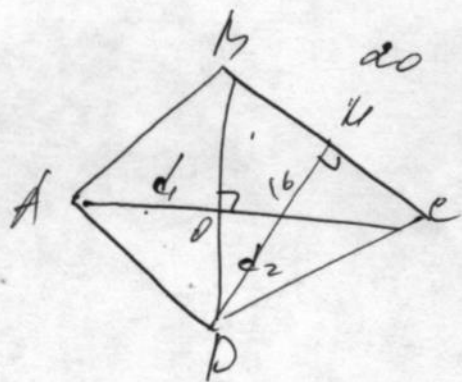




Ответ:  $d_1 = 8\sqrt{5}$   
 $d_2 = 16\sqrt{5}$

$$S_{\text{ромб}} = AC \cdot BD = 16 \cdot 20 = 320 \text{ см}^2$$

$$S_{\text{ромб}} = \frac{1}{2} d_1 \cdot d_2 \Rightarrow d_1 \cdot d_2 = 640 \Rightarrow d_1 = \frac{640}{d_2}$$

△BOC - прямоугольный по теореме Пифагора

$$OB^2 + OC^2 = BC^2$$

$$\frac{d_1^2}{4} + \frac{d_2^2}{4} = 400 \quad | \cdot 4 \Rightarrow d_1^2 + d_2^2 = 1600$$

$$\frac{409600}{d_2^2} + d_2^2 = 1600 \quad | \cdot d_2^2 \Rightarrow$$

$$d_2^4 - 1600d_2^2 + 409600 = 0$$

$$\text{посл } t = d_2^2 \Rightarrow t^2 - 1600t + 409600 = 0.$$

$$D = 2560000 - 1638400 = 960^2$$

$$t_1 = \frac{1600 + 960}{2} = 1280$$

$$t_2 = \frac{1600 - 960}{2} = 320.$$

$$d_{21}^2 = 1280$$

$$d_{21} = 16\sqrt{5} \Rightarrow d_{11} = \frac{640}{16\sqrt{5}} = 8\sqrt{5}$$

$$d_{22} = 8\sqrt{5} \Rightarrow d_{12} = \frac{640}{8\sqrt{5}} = 16\sqrt{5}$$