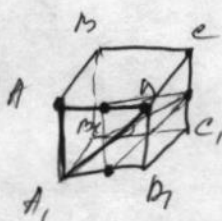
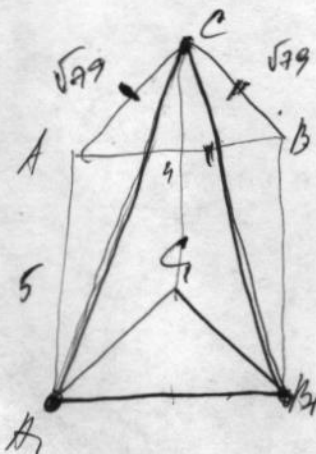
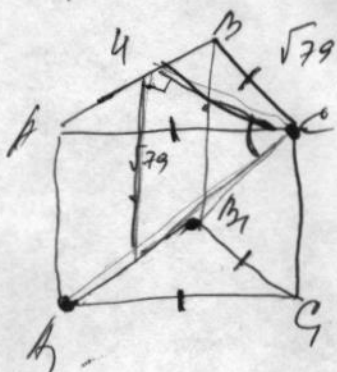


В023



$$\frac{1}{2}CD = \frac{1}{2} \cdot 4 = 2$$

В022:



$$h_{ABE} = \sqrt{79 - 4} = 5\sqrt{3}$$

$$\tan \alpha = \frac{AA_1}{h_{ABE}} = \frac{5}{5\sqrt{3}} = \frac{1}{\sqrt{3}}$$

$$\alpha = 30^\circ$$

Задача: Найти угол между двумя плоскостями, если $AC = 2\sqrt{7}$.

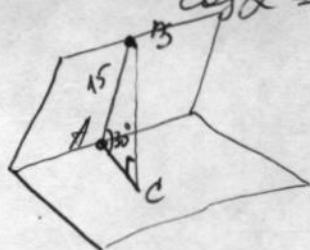
по Т. кос: $AC^2 = AB^2 + BC^2 - 2AB \cdot BC \cos \alpha$

$$28 = 16 + 36 - 2 \cdot 4 \cdot 6 \cdot \cos \alpha$$

$$48 \cos \alpha = 24$$

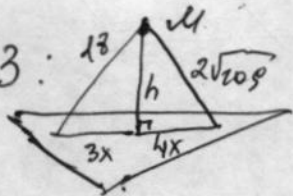
$$\cos \alpha = \frac{1}{2} \quad \alpha = 60^\circ$$

В016:



$$BC = AB \cdot \sin 30 = 15 \cdot \frac{1}{2} = 7.5$$

В003:



по т. Пифагора

$$\begin{cases} h^2 = 324 - 9x^2 \\ h^2 = 436 - 16x^2 \end{cases}$$

$$324 - 9x^2 = 436 - 16x^2$$

$$16x^2 - 9x^2 = 436 - 324$$

$$7x^2 = 112$$

$$x^2 = 16$$

$$x = 4$$

Меньшая проекция: $3x = 3 \cdot 4 = 12$