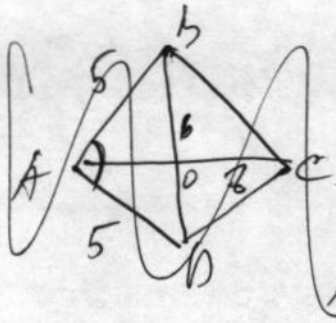
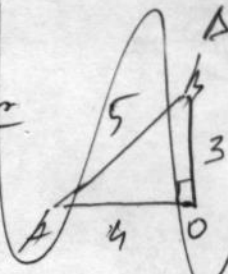




$\triangle ABO$ – прямоугольный $\Rightarrow$

по т. Пифагора: $AB = \sqrt{9+16} = 5$

$AB = BC = CD = AD$ – т.к. ромб

по т. cos:

$BD^2 = AB^2 + AD^2 - 2AB \cdot AD \cos\alpha \Rightarrow$

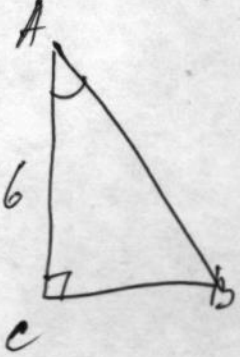
$36 = 2 \cdot 25 - 2 \cdot 25 \cos\alpha$

$50\cos\alpha = 14$

$\cos\alpha = \frac{7}{25}$

$\angle A = \angle C = \arccos\frac{7}{25}$.

$\angle B = \angle D = 180 - \arccos\frac{7}{25}$.



$\sin A = 0{,}8 = \frac{4}{5}$

$\cos A = \sqrt{1-\sin^2 A} = \sqrt{1-\frac{16}{25}} = \sqrt{\frac{9}{25}} = \frac{3}{5}$

$\cos A = \frac{AC}{AB} \Rightarrow AB = \frac{AC}{\cos A} = \frac{6 \cdot 5}{3} = 10$ Ответ: 10

$= \frac{2 \cdot 3 \cdot 4}{5 \cdot 5} = \frac{24}{25}$

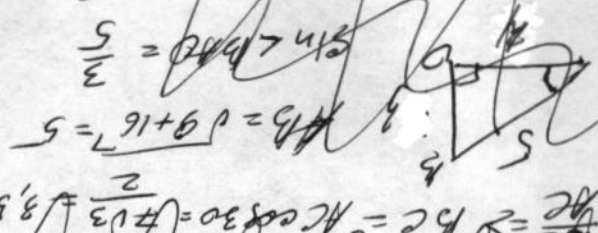
$\sin(2\angle ABO) = 2\sin\angle ABO \cdot \cos\angle ABO =$

$\angle A = \angle AC = \alpha < ABO$

$\angle B = \angle D = \alpha < ABO$

$\sin\angle ABO = \frac{4}{5}$

$\cos\angle ABO = \frac{3}{5}$.



$\sin\angle ABO = \frac{3}{5}$

$\cos\angle ABO = \frac{4}{5}$.

$\sin\angle ABO = \frac{4}{5}$

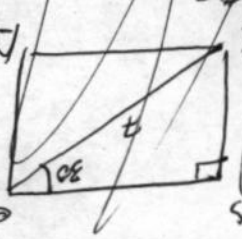
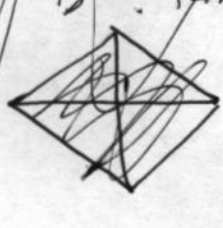
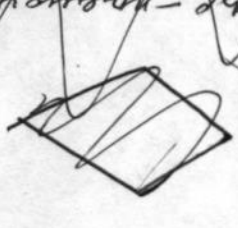
$\cos\angle ABO = \frac{3}{5}$.

$\angle A = \angle AC = \alpha < ABO$

$\angle B = \angle D = \alpha < ABO$

$\sin(2\angle ABO) = 2\sin\angle ABO \cdot \cos\angle ABO =$

$= \frac{2 \cdot 3 \cdot 4}{5 \cdot 5} = \frac{24}{25}$

$\triangle ABC$ – прямоугольный: $\sin 30 = \frac{AB}{AC} \Rightarrow AB = AC\sin 30 = 9 \cdot \frac{1}{2} = 3{,}5$.

$\cos 30 = \frac{BC}{AC} \Rightarrow BC = AC\cos 30 = 4\frac{\sqrt{3}}{2} = 3{,}5\sqrt{3}$