

10 .

1. , 30°

30°

17,3

$$-v_0 \sin 30^\circ t + gt^2/2 = 10$$

$$v_0 \cos 30^\circ t = 20$$

$$t : t = 40 / (3)^{1/2} v_0$$

$$v_0, \quad v_0 = \mathbf{11,12} \text{ / .}$$

2.

30°

μ

tg30°.

60°

$$: s = v_0^2 / 2a_1,$$

$$t_1 = v_0 / a_1,$$

$$a_1 = g(\sin 60^\circ + \mu \cos 60^\circ).$$

$$s : s = a_2 t_2^2 / 2,$$

$$a_2 = g(\sin 60^\circ - \mu \cos 60^\circ), \quad t_2 -$$

$$a_1 = 11,55 \text{ / }^2, t_1 = 2,60, s = 38,96, a_2 = 5,775 \text{ / }^2, t_2 = 3,67.$$

$$t = \mathbf{6,27}.$$

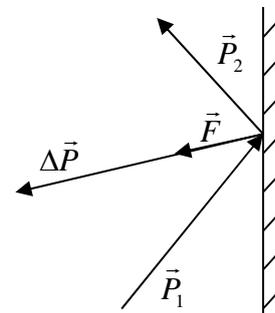
3.

$$\vec{\Delta P} = \vec{P}_2 - \vec{P}_1.$$

$$: P = (P_1^2 + P_2^2)^{1/2} = 0,3 \times 25 \quad / = 7,5 \quad / .$$

$$\vec{F} = \Delta \vec{P} / \Delta t = 7,5 / 0,05 = 150,$$

$$\vec{P} \cdot \mathbf{F} = \mathbf{150}.$$



4.

12,

18,

$$(50 \text{ }^2)$$

$$(150 \text{ }^2 - 50 \text{ }^2),$$

1: 2,

12,

6.

$$A = F \cdot h,$$

$$h = 12.$$

F -

$$F = F_{\max} / 2, \quad F_{\max} -$$

$$F_{\max} = ( \quad - \quad ) g V.$$

$$= (1000 - 400) \times 10 \times 50 \times 10^{-4} \times 30 \times 10^{-2} \times 0,5 \times 12 \times 10^{-2} = \mathbf{0,54}.$$

5.

$$\frac{Q_1}{Q_2} = \frac{fd_1l_1}{fd_2l_2}.$$

$$P = U^2/R$$

$$\frac{Q_1}{Q_2} = \frac{R_2}{R_1}.$$

$$R_1 = \dots \frac{l_1}{fd_1^2/4}$$

$R_2,$

$$\frac{l_2}{l_1} = \sqrt{\frac{d_2}{d_1}} = 2.$$

110 .