1. $h = \dfrac{v^2 \sin^2 \alpha}{2g} + S \sin \alpha \cos^2 \alpha \approx 1{,}63$ м.

2. $\dfrac{\sqrt{2}\,\pi}{\pi + 2\sqrt{2}} \approx 0{,}74.$

3. $F_1 = \dfrac{1}{2} \rho \sqrt{a^2 + b^2}\, blg = 500$ кН.

4. $x_{\text{цм}} = \dfrac{19}{42} a \approx 4{,}5$ см.

5. $H = \dfrac{h_1}{n_1} + \dfrac{h_2}{n_2} = 1{,}67$ м.