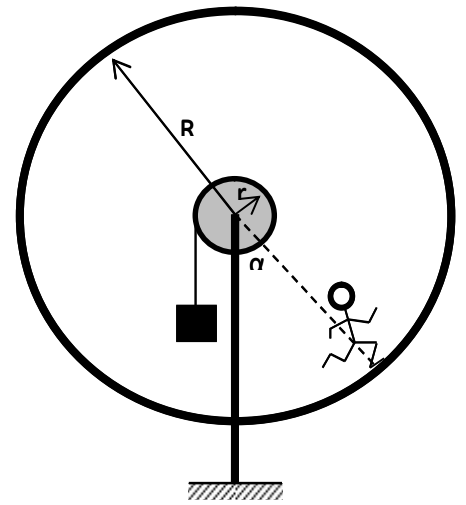


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0-1	()
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1.

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 R
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 1)
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$$N = \frac{R}{r}$$

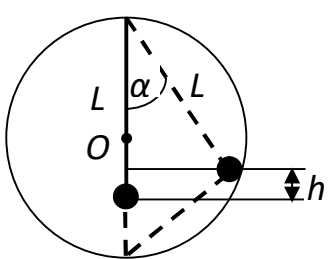
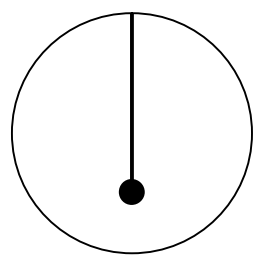
$$m_{rp} = \frac{F_{rp} R}{g r}$$

$$\frac{m \cdot \sin \alpha \cdot R}{r}$$

$$F = mg \cdot \sin \alpha$$

2.

m
 R.
 ?



L.
 h
 , ...

$$h = L \left(1 - \frac{L}{2R} \right) = L - \frac{L^2}{2R} \quad , \quad h = L(1 - \cos \alpha) \quad , \quad L = 2R \cos \alpha .$$

$$E_{\max} = E_{p_{\max}} = mgh_{\max} = \frac{1}{2} mgR . \quad L = R \quad h_{\max} = \frac{R}{2}$$

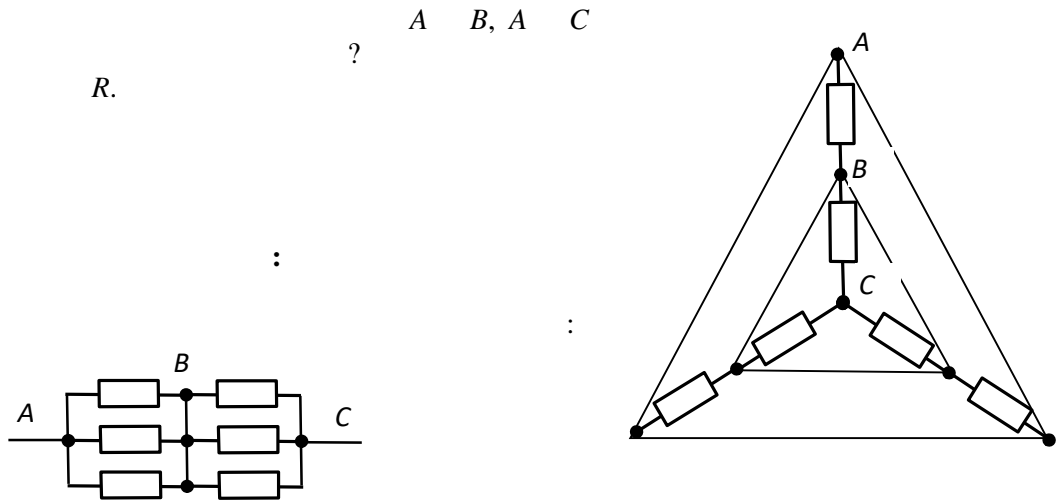
3.

$$p_2 = 1,2p_1 + p \quad , \quad p = 9p_1 \quad , \quad p_1 = 10p_1 \quad , \quad p_2 = 10,2p_1 .$$

$$1,02p_1 + 1,02p = 1,2p_1 + p \quad , \quad p_3 = 1,44p_1 + p = 10,44p_1 .$$

$$\frac{p_3 - p_2}{p_2} = \frac{10,44 - 10,2}{10,2} \cdot 100\% \approx 2,4\% .$$

4.



$$R_{AB} = \frac{1}{3} R \quad , \quad R_{AC} = \frac{2}{3} R .$$

5.

$$Q = \frac{Fv}{2}$$

t n $N = nSvt$, S , m $p = mv$.

$$|\mathbf{F}| = \frac{|\Delta \mathbf{p}|}{\Delta t} = \frac{Nmv}{t} = nSmv^2.$$

$$Q_t = N \cdot \frac{mv^2}{2} = \frac{nSmv^3 t}{2}, \quad Q = \frac{nSmv^3}{2} = \frac{Fv}{2}.$$