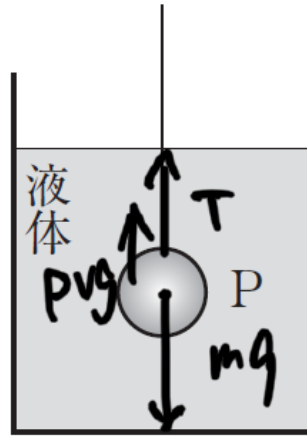
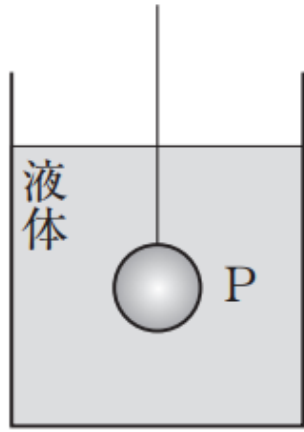


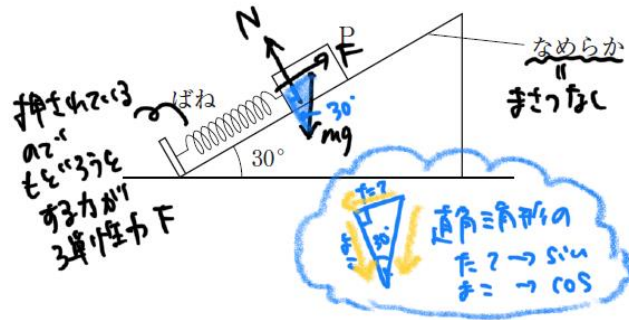
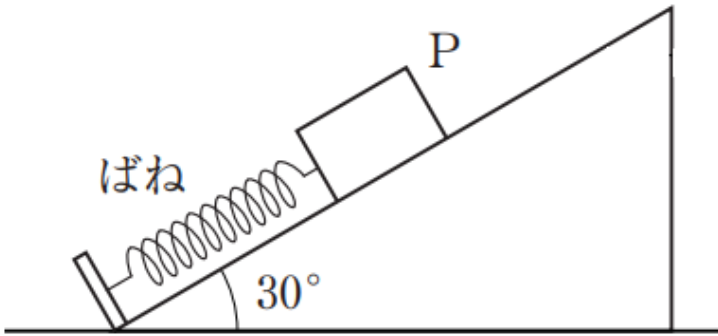
【高校物理】作図と連立方程式の作り方一覧

連立方程式を立てられたら、あとは代入法や辺々を割り算などひたすら計算するだけです。



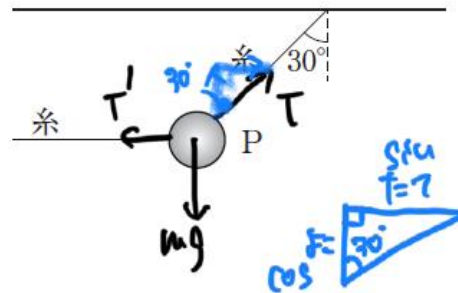
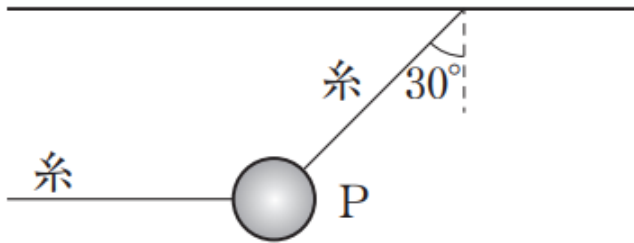
つり合いの式

$$\begin{aligned} \text{上} &= \text{下} \\ \text{浮力} + \text{張力} &= \text{重力} \\ PVg + T &= mg \dots \text{式①の対} \end{aligned}$$



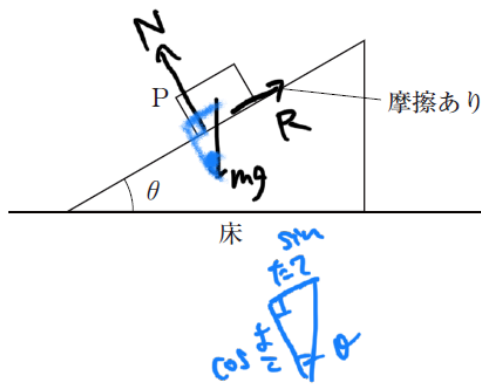
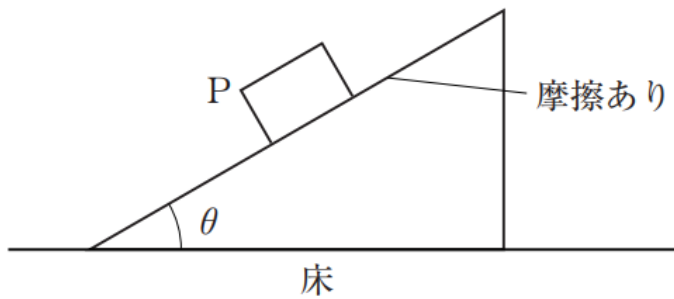
つり合い

$$\begin{aligned} \text{左} &= \text{右} \\ \sin 30^\circ \times mg &= F \dots \text{①} \\ N &= \cos 30^\circ \times mg \dots \text{②} \\ \text{上} & \quad \text{下} \end{aligned}$$

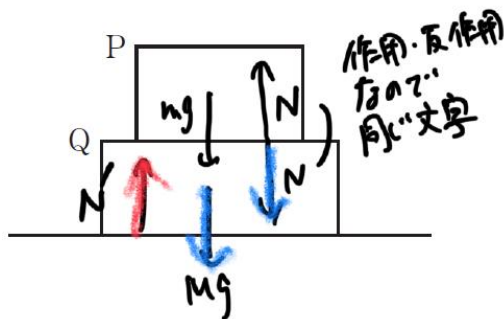
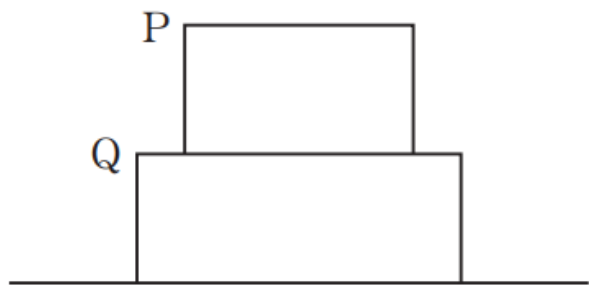


連立

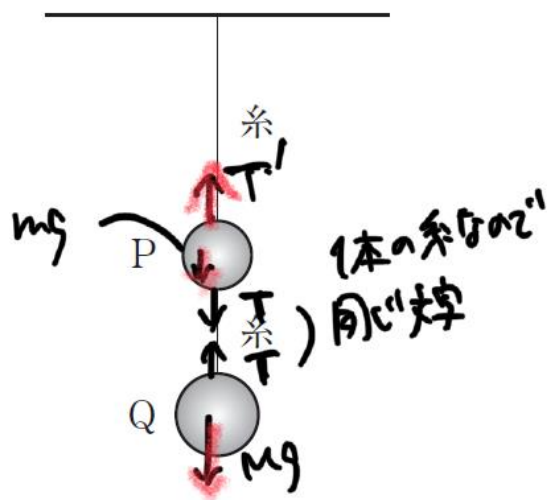
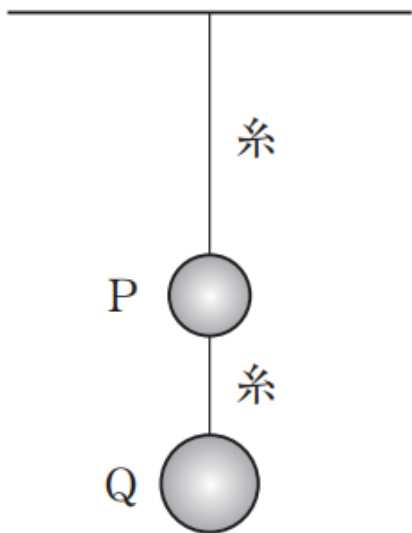
$$\begin{aligned} \text{下} &= \text{上} \\ mg &= \cos 30^\circ T \dots \text{①} \\ T' &= \sin 30^\circ T \dots \text{②} \\ \text{左} & \quad \text{右} \end{aligned}$$



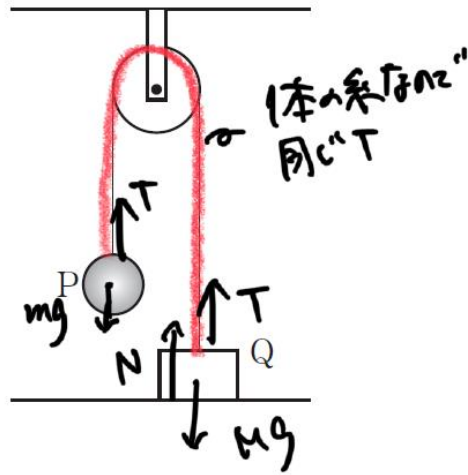
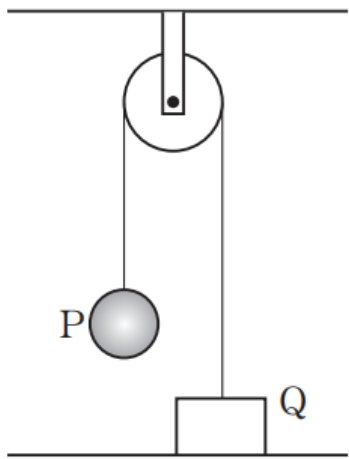
$$\left. \begin{aligned} \text{左} &= \text{右} \\ \sin \theta \times mg &= R \quad \dots (1) \\ \text{上} &= \text{下} \\ N &= \cos \theta \times mg \quad \dots (2) \end{aligned} \right\}$$



$$\left. \begin{aligned} \text{Pに} & \uparrow \\ & mg = N \\ \text{Qに} & \uparrow \\ Mg + N &= N' \end{aligned} \right\}$$

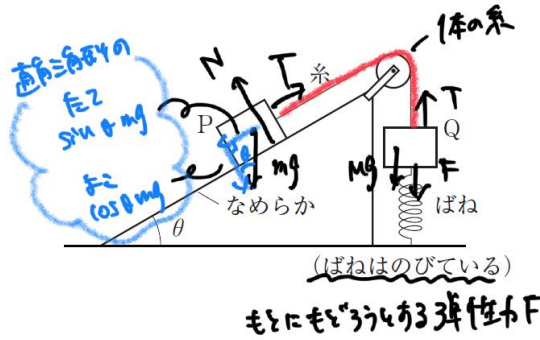
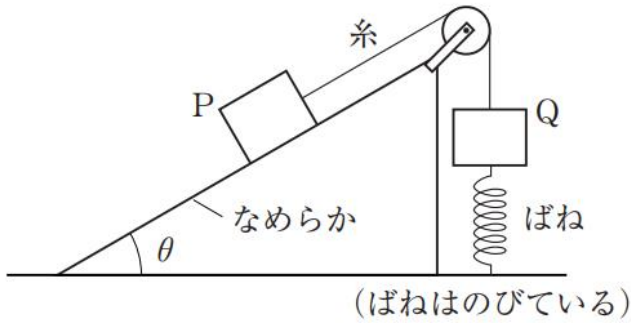


$$\left. \begin{aligned} \text{Pに} & \uparrow \\ & T' = mg + T \\ \text{Qに} & \uparrow \\ & T = Mg \end{aligned} \right\}$$



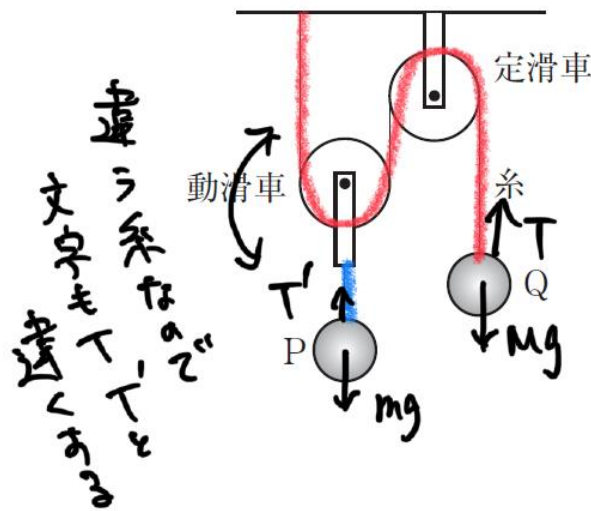
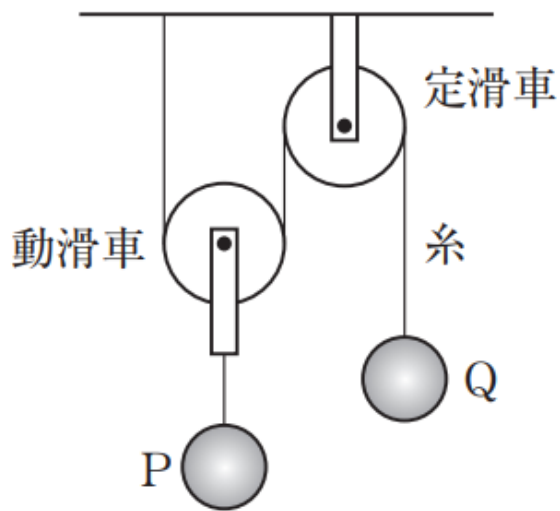
連立

$$\begin{cases} P: T = mg \\ Q: Mg = N + T \end{cases}$$



連立

$$\begin{cases} P: T = mg \sin \theta \\ Q: T = F + Mg \end{cases}$$

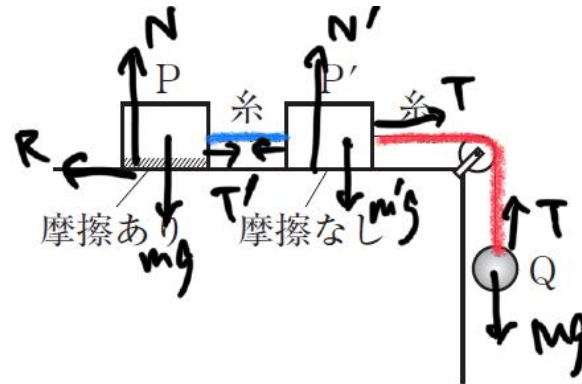
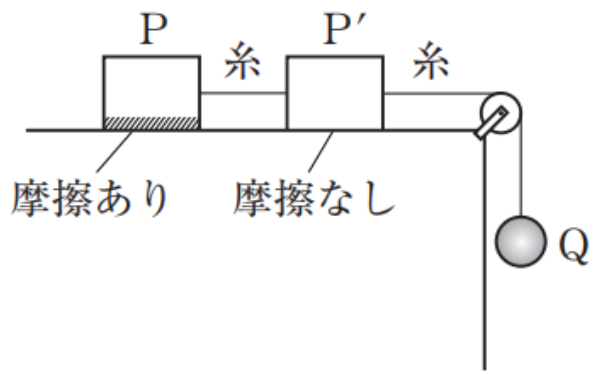


連立

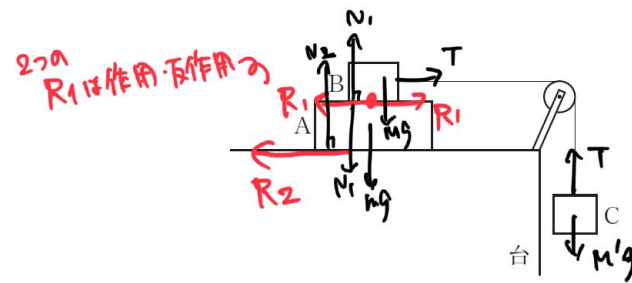
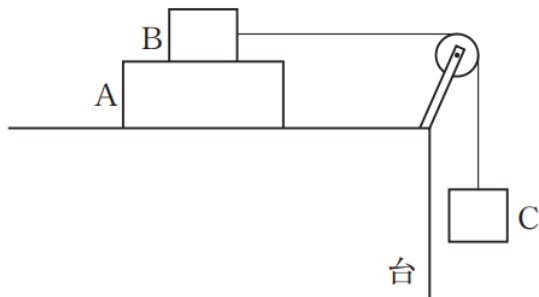
$$\begin{cases} P: T' = mg \\ Q: T = Mg \end{cases}$$

※ 動滑車(質量m')

$$mg + T' = 2T$$



$$\begin{cases}
 P \text{ について} & \text{左} = \text{右} \\
 & R = T' \\
 P' \text{ について} & \text{左} = \text{右} \\
 & T' = T \\
 Q \text{ について} & \text{上} = \text{下} \\
 & T = Mg
 \end{cases}$$



$$\begin{aligned}
 & \star A \text{ について} & \text{左} & \text{右} & \star C \text{ について} \\
 & & & & T = m'g \\
 & R_2 = R_1 \\
 & \text{上} = \text{下} \\
 & N_2 = N_1 + m'g \\
 & \star B \text{ について} & \text{左} & \text{右} \\
 & R_1 = T \\
 & \text{上} & \text{下} \\
 & N_1 = Mg
 \end{aligned}$$