

● 予習

1. (1)  $\mathbf{A} + \mathbf{B} = \left( \frac{-\sqrt{3} + \sqrt{3}}{4}, \frac{1+3}{4} \right) = (0,1)$

(2)  $\mathbf{C} - \mathbf{B} = \left( -\frac{\sqrt{3}}{4}, -\frac{7}{4} \right)$

(3)  $\mathbf{A} + \mathbf{B} + \mathbf{C} = (0,0)$

2. 正弦定理 (ラミの定理) より

$$\frac{mg}{\sin 90^\circ} = \frac{a}{\sin 60^\circ} = \frac{b}{\sin 30^\circ} \quad \text{より} \quad a = \frac{\sqrt{3}}{2}mg, \quad b = \frac{1}{2}mg$$