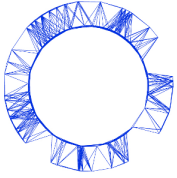


Theory



IPhO 2018
Lisbon, Portugal

A3-1

Japanese (Japan)

生体組織の物理 (10 点)

Part A. 血液流の物理 (4.5 点)

A.1 (1.3 pt)

$$Q_i =$$

A.2 (0.5 pt)

$$Q_0 =$$

A.3 (2.0 pt)

$$P_{\text{out}} =$$

条件:

A.4 (0.7 pt)

$$\text{最大値 } h =$$

Part B. 腫瘍 (しゅよう) の成長 (5.5 点)

B.1 (1.0 pt)

$$v =$$

B.2 (1.7 pt)

温度:

B.3 (0.5 pt)

$$\mathcal{P}_{\text{min}} =$$

B.4 (2.3 pt)

$$\frac{\delta Q_{N-1}}{Q_{N-1}} \simeq$$