

D/34

$$\begin{array}{l|l}
 \textcircled{1} & \\
 b = 800 & M(x) = \frac{a+b}{2} = \frac{1000}{2} = 500 \\
 a = 200 & \\
 \sigma(x) = ? & \sigma(x) = \frac{(b-a)^2}{12} = \frac{(600)^2}{12} = 30000 \\
 M(x) = ? & 
 \end{array}$$

Ornber:  $M(x) = 500$ ;  $\sigma(x) = 30000$

$$\begin{array}{l|l}
 \textcircled{2} & \\
 \sigma(x) = 0,2 & \sigma(x) = \frac{(b-a)^2}{12} \\
 a = 0,5 & 0,2 = \frac{(b-0,5)^2}{12} \quad | \cdot 12 \\
 M(x) = ? & 2,4 = (b-0,5)^2 \quad | \sqrt{\phantom{x}} \\
 b = ? & 1,55 = b - 0,5 \\
 & b \approx 2,05
 \end{array}$$

$$\begin{aligned}
 M(x) &= \frac{a+b}{2} = \\
 &= \frac{2,05 + 0,5}{2} = 1,275
 \end{aligned}$$

Ornber:  $b \approx 2,05$ ;  $M(x) \approx 1,275$



$$③ \quad f(x) = \frac{1}{4(2\pi)^2} \cdot e^{-\frac{(x+2)^2}{32}}$$

$$a) \quad M(x) = -2$$

$$b) \quad 2\sigma^2 = 32$$

$$\sigma^2 = \frac{32}{2} = 16$$

$$D(x) = 16$$

$$⑤ \quad h = 190 \text{ см}$$

$$M(x) = 178 \text{ см}$$

$$D(x) = 25 \text{ см}^2$$

$$n(\sigma) = ?$$

$$\sigma = \sqrt{D(x)} = 5 \text{ см}$$

$$z = \frac{190 - 178}{5} = 2,4$$

Ответ: на 2,4 стандартных отклонения от среднего значения 178 см

$$④ \quad M(x) = 174 \text{ см}$$

$$\sigma = 8 \text{ см}$$

$$P = ?$$

$$1) \quad P(X < 166) = \Phi\left(\frac{166 - 174}{8}\right) = \Phi(-1) = 0,2413$$

