

$$X \sim N(21.3, 1.7^2)$$

$$\begin{aligned} \text{a) } P(21 < X < 22) &= P\left(\frac{21-21.3}{1.7} < \frac{X-21.3}{1.7} < \frac{22-21.3}{1.7}\right) = \\ &P(-0.18 < Z < 0.41) = \Phi(0.41) - \Phi(-0.18) = 0.6591 - \\ &0.4286 = 0.2305 \end{aligned}$$