

801 partially done

$$X \sim N(0, 1)$$

$$P(0,21 < X < 0,29) = \Phi_X(0,29) - \Phi_X(0,21) \\ = 0,031$$

802 $X \sim N(0, 1)$

a) $P(X > x) = 0,001$

$$1 - \Phi(x) = 0,001$$

$$\Phi(x) = 0,999$$

$$x = 3,1$$

b) $P(X > x) = 0,999$

$$1 - \Phi(x) = 0,999$$

$$\Phi(x) = 0,001$$

$$x = -3,1$$

$$\boxed{803} \quad X \sim N(0, 1)$$

$$Y = 3X + 2$$

$$Y \sim N(0+2, 3^2 \cdot 1)$$

$$E[Y] = 2$$

$$D[Y] = 3$$