No.

DATE

2. (1) $e = \frac{\sigma}{\sqrt{n}} \times Z_{\frac{\alpha}{2}}$

$\alpha = 3e = 0.5 \quad 1-\alpha = 0.95$

$n = \left(\frac{3}{0.5}\right)^2 \times 1.96^2 = 138.3 \doteq 139$

(2) $\alpha = 0.2e = 0.03 \quad 1-\alpha = 0.9$

$n = \left(\frac{0.2}{0.03}\right)^2 \times 1.645^2 = 120.27 \doteq 121$

(3) $\alpha = 0.05 \quad e = 0.02 \quad 1-\alpha = 0.98$

$n = \left(\frac{0.05}{0.02}\right)^2 \times 2.326^2 = 33.8 \doteq 34$

6. $1250 \pm Z_{0.025}\sqrt{\frac{1440^2}{120}}$

$= 1250 \pm 25.05$

$= (1275.05, 1224.95)$

10. (1) $M_1 - M_2 = \bar{x} - \bar{y} = 85 - 78 = 7$

(2) $7 \pm 1.645\sqrt{\frac{154}{60} + \frac{146}{40}}$

$= 7 \pm 1.645 \times 2.59$

$= 7 \pm 4.26$

$\Rightarrow (2.74, 11.26)$