Unit Sampling distributions part 2

7.2: 8, 10, 11, 12, 21, 23

Brock Fravel
AD205 2116!

7.3

8) $\hat{p} = \frac{234}{450} = \frac{13}{25} = .52$

$s.e.(\hat{p}) = \sqrt{\frac{.52(1-.52)}{450}} = .0236$

10) $\hat{p} = .2$

$s.e.(\hat{p}) = \sqrt{\frac{.2(.8)}{120}} = .0365$

11) $\hat{p} = .22$

$s.e.(\hat{p}) = \sqrt{\frac{.22(.78)}{150}} = .0338$

12) $\hat{p} = .325$

$se.(\hat{p}) = \sqrt{\frac{.325(.675)}{80}} = .0524$

21) $P(.62 \le \hat{p} \le .64) = P(186 \le X \le 192)$

$= P\left(\frac{186-189}{8.3624} \le z \le \frac{192-189}{8.3624}\right)$

$= P(-.419 \le z \le .419) = .324$

$\mu = np = .63(300) = 189$

$\sigma = \sqrt{189(1-.63)} = 8.3624$

23) $s.e.(\hat{p}) = \sqrt{\frac{.126(1-.126)}{760}} = .017$