

Page 257. Warning, to get your answers, correct to 2 places, you must calculate your std. devs. to 4 places. Recommendation: use your calculator's variables to store intermediate answers. Reminder: you get extra credit for findings errors in the lecture notes, homework sheets and recommended problem sheets.

7.30. Random samples of size $n=500$ are selected from a binomial population with $p=.1$.

$\sigma_{\hat{p}} =$. _ _ _ _

(a) Is the normal distribution an appropriate approximation for the sampling distribution of \hat{p} ?

yes? no?

(b) $P(\hat{p} > .12) =$. _ _ 7

(c) $P(\hat{p} < .10) =$. _ _ 5

(d) \hat{p} lies within .02 of p . . _ _ 14

7.32. In a binomial population with $p=.8$ and $n=400$.

$\sigma_{\hat{p}} =$. _ _

(a) Is the normal distribution an appropriate approximation for the sampling distribution of \hat{p} ?

yes? no?

(b) $P(\hat{p} > .83) =$. _ _ 7

(c) $P(.76 < \hat{p} < .84) =$. _ _ 14

7.36'. Intel made 76% of the microprocessors shipped in PCs in 1996. In order to verify this percentage, a random sample of 1000 PCs are classified according to whether or not their processor is made by Intel.

$\mu_{\hat{p}} =$. _ _ 13

$\sigma_{\hat{p}} =$. _ _ _ _ 9

(b) What is the probability that the sample percentage exceeds 80%? . _ _ _ _ 6

(c) What is the probability that the sample percentage is between 75% and 80%? . _ _ 14