Practice worksheet | Sampling and confidence intervals

# Sampling distribution of a sample proportion

Name: _____ Date: _____

6 questions | 12 marks

**1.** For p = 0.3, n = 400, find sample-proportion mean and variance. [2 marks]

**2.** For p = 0.25, n = 300, find sample-proportion SD. [2 marks]

**3.** Check normal expected-count conditions for p = 0.02, n = 100. [2 marks]

**4.** For p = 0.5,n = 100, approximate $P(0.4 < \hat{p} < 0.6)$ without continuity correction. [2 marks]

**5.** Why cannot a sample of 20 have sample proportion exactly 0.333? [2 marks]

**6.** Compare sample-proportion SDs for n = 150 and n = 600 with p fixed. [2 marks]