1. 2% of the transistors produced by a machine are defective. On average, how many transistors would you expect to be produced before the first with a defect?

(A) 100

(B) 50

(C) 25

(D) None of the above

A telephone survey of is done to determine the average number of pets in the typical American family. Past experience has shown that 40% of those telephoned will refuse to respond to the survey.

2.   In 100 independent calls, what is the probability that exactly 60 people respond?

(A) $\binom{100}{60}(0.40)^{60}(0.60)^{40}$

(B) $\binom{100}{40}(0.40)^{60}(0.60)^{40}$

(C) $\binom{100}{60}(0.40)^{40}(0.60)^{60}$

(D) None of the above

A telephone survey of is done to determine the average number of pets in the typical American family. Past experience has shown that 40% of those telephoned will refuse to respond to the survey.

3.   How many calls do we expect to have to make before someone responds?

(A) 1.67

(B) 2

(C) 2.5

(D) None of the above

4.   Suppose that 7% of teenagers suffer from arachnaphobia. Given 10 randomly chosen teenagers, what is the probability that at most 1 suffers from arachnaphobia?

(A) 35%

(B) 50%

(C) 85%

(D) None of the above