
Statistics
Doodle Art Alley ©

Quiz #1

1) Suppose that the price of an item is normally distributed with mean 42 and standard deviation 10 then the 85th percentile of the item price is closest to:

A. 1.04
B. -1.04
C. 37
D. 32
E. 52

2) Let X-Bin(9,0.7), then P(×>5|X >4) is closest to:

A. 0.925
B. 0.81
C. 0.428
D. 0.48
E. 0.553

3) A box has a large number of items of which their weights are distributed normally with a
mean of 50 gms and a standard deviation of 15 gms. One item was picked at random, if its weight is denoted by X, then P(× > 48) is closest to:

A. 0.55

B. 0.70
C. 0.45
D. 0.58
E. 0.30

4) Suppose that X-bin(75,0.2). Using the normal approximation to the binomial distribution, $P(14 < X \leq 16)$ is closest to:

A. 0.28
B. 0.22
C. 0.17
D. 0.33
E. 0.25

5) Let X - bin(n, p) such that $\mu = 2.75$ and $\sigma 2 = 1.2375$ then P(X=3) is closest to:

A. 0.256
B. 0.356
C. 0.346
D. 0.337
E. 0.143

6) Suppose X is a random variable with possible values 4, -1, and 2, and with respective probabilities 0.48, 0.15, and 0.37. Then E(5X-2x2) is:

A. -12.6504
B. 25.1502
C. 37.7504
D. -0.0502
E. -6.07

7) Suppose that the mean and standard deviation of plants height are 120 and 37, respectively, if a random sample of size 36 is slected from these plants, then the probability that their average height is more than 125 is closest to:

A. 0.83
B. 0.79
C. 0.87
D. 0.21
E. 0.13

1) E	2) B	3) A	4) B	5) D	6) E
7) E					

Quiz #2

1) If X is distributed t with 23 degrees of freedom, then the 90th percentile of X is closest to:

A. 1.26
B. -1.32
C. 1.38
D. 1.32
E. -1.38

2) Suppose X-N(16,36) and Y -N(19,16). If a sample of size 20 was selected from the X population
and another sample, independent of the first, of size 15 was selected from the Y population, then P($\bar{x} < \bar{Y}$) is closest to:

A. 0.9
B. 1
C. 0.038
D. 0.96
E. 0.000034

3) Suppose that 35% of the people entering a store make a purchase. If a random sample of 90 shoppers is selected,then the probability that at least 40% of them will make a purchase is:

A. 0.84
B. 0.275
C. 0.16
D. 0.168
E. 0.28

4) Suppose a random variable Y has a chisquare distribution with 17 degrees of freedom, then the 90th percentile of Y is:

A. 23.54
B. 27.2
C. 22.31
D. 1.333
E. 24.77

5) If a sample of size 12 is selected from N(50,36), then $P(S2 < 80.9181)$ is:

A. 0.90
B. 0.95
C. 0.01
D. 0.05
E. 0.99

6) A sample of size 8 has a mean of 79 and a standard deviation 13. Assuming the population is distributed N (μ , 169), the length of a 95% confidence interval for μ is closest to:

A. 786.321
B. 17.4157
C. 21.7365
D. 15.1201
E. 18.0167

7) The minimum sample size needed to construct a 95% confidence interval for μ , with error not exceeding 2. if the sample is to be drawn from a normal population with variance 256 is:

A. 245
B. 211
C. 21
D. 210
E. 246

1) D	2) D	3) A	4) E	5) E	6) E
7) E					

"خُلقتَ كموجِ البحرِ مُندفعاً ... فما القيودُ و ما الأصفاد و اللّجم ؟!"