Stat Jeopardy!

Extra Credit: Before you begin, enter your name in the text field below. After you have finished with "Stat Jeopardy", print the next page (the game board page) and turn it in for extra credit.

Name: _____

Method of Scoring. If you answer a question correctly, the dollar value of that question is added to your total. If you miss a question, the dollar value is *subtracted* from your total. So think carefully before you answer!

Instructions. Solve the problems in any order you wish. If your total at the end is more than \$2040, you will be declared **Stat-terrific**, a master of elementary statistics!

To Begin: Go to the next page.

 Okaloosa-Walton College

Discrete Dist^{ns}	Binomial Dist^{n}	Standard Normal Dist^{n}	Normal Dist^{n}
100	100	100	100
200	200	200	200
300	300	300	300

Score:

Print this page: Print Student:

Time stamp: 04-14-13, 19:15:35.

Discrete Dist^{ns}

For $100: There are two types of random variables, discrete and _____. This second type is ...

(a) discrete

(b) categorical

(c) continuous

(d) qualitative

(e) interval

(f) deterministic

Discrete Dist^{ns}

For $200: A bank recorded the number of ATM transactions made by its customers in one day. The number x of daily ATM transactions per customers can be approximated by the following probability distributions.

x	0	1	2	3	4	5	6	7	8
$P(x)$	0.02	0.02	0.06	0.06	0.08	0.22	0.30	0.16	0.08

The $P(x > 5)$ is...

(a) 0.22

(b) 0.76

(c) 0.54

(d) 0.30

Discrete Dist^{ns}

For $300: A company gave psychological tests to prospective employees. The random variable x represents the test score of the employee.

x	0	1	2	3	4
$P(x)$	0.05	0.25	0.35	0.25	0.10

The mean value μ of x is...

(a) 2.05

(b) 2.1

(c) 2.35

(d) 2.25

(e) None of these

Binomial Dist^{n}

For $100: What is counted by a binomial random variable. What is. . .

(a) failure

(b) success

Binomial Dist^{n}

For $200: A surgical technique is performed on twelve patients. It is known that the technique has a 80% chance of success. The mean and variance of the number of successful surgeries on the twelve patients are computed. The mean and variance are...

(a) $2, 4$ and 1.92

(b) 2.4 and 1.39

(c) 9.6 and 1.39

(d) 9.6 and 1.92

(e) None of these

Binomial Dist^{n}

For $300: A surgical technique is performed on twelve patients. It is known that the technique has a 80% chance of success. The probability that more than ten of the surgeries are successful is...

(a) 0.069

(b) 0.206

(c) 0.283

(d) 0.725

(e) 0.275

(f) 0.558

Standard Normal Dist^{n}

For $100: The area under a standard normal distribution to the `right` of $z = 1.23$ is ...

(a) 0.0918

(b) 0.1093

(c) 0.1292

(d) 0.8907

(e) 0.8708

(f) 0.9082

Standard Normal Dist^{n}

For $200: The area under a standard normal distribution to the *between* $z = -0.52$ and $z = 1.6$

(a) 0.3015

(b) 0.6352

(c) 0.6437

(d) 0.6524

(e) 0.9452

(f) one of these

Standard Normal Dist^{n}

For $300: Using z to denote the standard normal distribution, what is $P(z > -0.25)$

(a) 0.3133

(b) 0.4013

(c) 0.4812

(d) 0.5987

Normal Dist^{n}

For $100: Let x be a normal random variable with mean $\mu = 2$ and variance $\sigma^2 = 9$. The $P(1.25 \leq x \leq 3.1)$ is equal to ...

(a) $P(-0.367 \leq z \leq 0.25)$

(b) $P(-0.122 \leq z \leq 0.083)$

(c) $P(-0.25 \leq z \leq 0.367)$

(d) $P(-0.083 \leq z \leq 0.122)$

Normal Dist^{n}

For $200: The lengths of Atlantic croaker fish are normally distributed, with a mean of 10 inches and a standard deviation of 1.5 inches. An Atlantic croaker fish is randomly selected. The probability that the length of the fish is less than 8 inches is...

(a) 0.0869

(b) 0.0901

(c) 0.0918

(d) 0.8907

(e) 0.9082

(f) 0.9066

(g) None of these

Normal Dist^{n}

For $300: In a survey of men in the United States (ages 20-29), the mean height is 69.2 inches with a standard deviation of 2.9 inches. The height that represents the 90^{th} percentile is ...

(a) 66.76

(b) 72.88

(c) 72.91

(d) 73.53

(e) None of these