Question 7

Find the P-value for the indicated hypothesis test. In a sample of 88 children selected randomly from one town, it is found that 8 of them suffer from asthma. Find the P-value for a test of the claim that the proportion of all children in the town who suffer from asthma is equal to 11%.

→ 0.5686

5 points

Question 8

Find the P-value for the indicated hypothesis test. An article in a journal reports that 34% of American fathers take no responsibility for child care. A researcher claims that the figure is higher for fathers in the town of Littleton. A random sample of 225 fathers from Littleton, yielded 97 who did not help with child care. Find the P-value for a test of the researcher's claim.

→ 0.0019

5 points

Question 9

Find the critical value or values of
    CritValX2
based on the given information. H1:
    sigma > 3.5 n = 14
    Alpha = 0.05

→ 22.362

5 points

Question 10

Find the critical value or values of
    CritValX2
based on the given information. H1:
    sigma > 26.1 n = 9
    Alpha = 0.01

➔ **20.090**

5 points

Question 11

Find the number of successes x suggested by the given statement. A computer manufacturer randomly selects 2850 of its computers for quality assurance and finds that 1.79% of these computers are found to be defective.

➔ **51**

5 points

Question 12

Assume that you plan to use a significance level of alpha = 0.05 to test the claim that p1 = p2, Use the given sample sizes andnumbers of successes to find the pooled estimate
   p-bar

Round your answer to the nearest thousandth. n1 = 570;n2 = 1992 x1 = 143;x2 = 550

➔ **0.270**

5 points
Question 13

Assume that you plan to use a significance level of alpha = 0.05 to test the claim that p1 = p2. Use the given sample sizes and numbers of successes to find the z test statistic for the hypothesis test. A report on the nightly news broadcast stated that 10 out of 108 households with pet dogs were burglarized and 20 out of 208 without pet dogs were burglarized.

➔ **z = -0.102**

5 points

Question 14

Solve the problem. The table shows the number of smokers in a random sample of 500 adults aged 20-24 and the number of smokers in a random sample of 450 adults aged 25-29. Assume that you plan to use a significance level of alpha = 0.10 to test the claim that
        p1notp2

Find the critical value(s) for this hypothesis test. Do the data provide sufficient evidence that the proportion of smokers in the 20-24 age group is different from the proportion of smokers in the 25-29 age group?
        W1T14

$z = \pm 1.645$; yes
$z = \pm 1.28$; yes
$z = \pm 1.96$; no
$z = 1.28$; no

==Need data for this problem.==

5 points

Question 15

Assume that you plan to use a significance level of alpha = 0.05 to test the claim that $p1 = p2$. Use the given sample sizes and numbers of successes to find the P-value for the hypothesis test. $n1 = 50$; $n2 = 75$ $x1 = 20$; $x2 = 15$

➔ ==0.0146==

5 points

Question 16

Construct the indicated confidence interval for the difference between population proportions $p1 - p2$. Assume that the samples are independent and that they have been randomly selected. $x1 = 61$, $n1 = 105$ and $x2 = 82$, $n2 = 120$; Construct a 98% confidence interval for the difference between population proportions $p1 - p2$.

➔ ==-0.252 < p1 - p2 < 0.047==

5 points

Question 17

Construct the indicated confidence interval for the difference between the two population means. Assume that the two samples are independent simple random samples selected from normally distributed populations. Do not assume that the population standard deviations are equal. A researcher was interested in comparing the resting pulse rates of people who exercise regularly and the pulse rates of people who do not exercise regularly. She obtained independent simple random samples of 16 people who do not exercise regularly and 12 people who do exercise regularly. The resting pulse rates (in beats per minute) were recorded and the summary statistics are as follows.
        W1T17
        View Full Image
    Construct a 95% confidence interval for mu1 - mu2, the difference between the mean pulse rate of people who do not exercise regularly and the mean pulse rate of people who exercise regularly.

    -3.22 beats/min < mu1 - mu2 < 11.62 beats/min
    -3.55 beats/min < mu1 - mu2 < 11.95 beats/min
    -3.74 beats/min < mu1 - mu2 < 12.14 beats/min
    -4.12 beats/min < mu1 - mu2 < 14.72 beats/min

        Need data for this problem.

5 points

Question 18

State what the given confidence interval suggests about the two population means. A researcher was interested in comparing the heights of women in two different countries. Independent simple random samples of 9 women from country A and 9 women from country B yielded the following heights (in inches).
        W1T18

The following 90% confidence interval was obtained for mu1 - mu2, the difference between the mean height of women in country A and the mean height of women in country B.-4.34 in. < mu1 - mu2 < -0.03 in What does the confidence interval suggest about the population means?

➔ **The confidence interval includes only negative values which suggests that the**
➔ **mean height of women from country A is smaller than the mean height of women**
➔ **from country B.**

5 points

Question 19

Construct the indicated confidence interval for the difference between the two population means. Assume that the two samples are independent simple random samples selected from normally distributed populations. Also assume that the population standard deviations are equal (sigma1 = sigma2), so that the standard error of the difference between means is obtained by pooling the sample variances. A paint manufacturer wanted to compare the drying times of two different types of paint. Independent simple random samples of 11 cans of type A and 9 cans of type B were selected and applied to similar surfaces. The drying times, in hours, were recorded. The summary statistics are as follows.
     W1T19
Construct a 99% confidence interval for mu1 - mu2, the difference between the mean drying time for paint type A and the mean drying time for paint type B.

-2.73 hrs < mu1 - mu2 < 7.73 hrs
-0.64 hrs < mu1 - mu2 < 5.64 hours
-1.50 hrs < mu1 - mu2 < 6.50 hrs
-2.01 hrs < mu1 - mu2 < 7.01 hrs

    ==Need data for this problem.==

5 points

Question 20

 The two data sets are dependent. Find
    d-bar
 to the nearest tenth.
    W1T20

  44.1
  20.3
  33.9
  203.4

    ==Need data for this problem.==