**Name Jamie Davis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date 11/02/2008\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**MAT115**

**Test 4**

**Chapters 8 and 9**

**20 problems – 5 points each**

**100 points possible**

Solve all problems and attach your solutions document in your **Individual Forum (IF)**.Remember to show all steps and check your work carefully.

|  |  |  |
| --- | --- | --- |
| Correct  Solution? | Appropriate Steps Shown? | Credit Earned per Problem |
| Y | Y | Full Credit |
| Y | N | Partial Credit |
| N | Y | Partial Credit |
| N | N | No Credit |

|  |  |  |
| --- | --- | --- |
|  |  | Grading -  Comments |
| 1. | Find the mean of the following set of numbers.  13, 15, 18, 18, 18, 19, 22, 26, 28, 33 |  |
| 2. | Find the median of the following set of numbers.  24, 26, 31, 33, 35, 36 |  |
| 3. | Find the mode of the following set of numbers.  22, 55, 43, 26, 33, 36, 43, 25 |  |
| 4. | Find the first and third quartiles, *Q*1 and *Q*3, of the following set of numbers.  14, 4, 13, 18, 6, 15, 6, 2, 11, 6 |  |
| 5. | Find the five-number summary of the following set of numbers.  10, 4, 9, 12, 6, 11, 6, 2, 7, 6 |  |
| 6. | Place the following set of numbers in ascending order. |  |
| 7. | Evaluate |  |
| 8. | Subtract –1.9  (–9.7). |  |
| 9. | Multiply (–7.5)(9)(–7). |  |
| 10. | Perform the indicated operation. |  |
|  | **Real World Applications (Remember to show all steps.)** |  |
| 11. | Fiona kept the following records of her phone bills for 12 months:  $42, $37, $51, $41, $58, $44, $42, $35, $53, $58, $46, $57  Find the mean and median of Fiona's monthly phone bills. |  |
|  | Use the following to answer questions 12 – 14. |  |
| 12. | Use the world population and land area table.  What is the total land area in Africa as a percent of Earth? |  |
| 13. | Use the world population and land area table.  What is the total land area of South America? |  |
| 14. | Use the world population and land area table. Round the answer to the nearest tenth of a percent.  What was the percent increase in population in South America from 1900 to 1950? |  |
| 15. | The table below gives the median household income by race and Hispanic origin of householder according to the 2000 census.   |  |  | | --- | --- | | **Race and Hispanic Origin** | **Income** | | White non-Hispanic | $45,856 | | Black | $30,439 | | Asian and Pacific Islander | $55,521 | | Hispanic (of any race) | $33,447 |   Create a bar graph from this information. |  |
| 16. | Use the graph below, showing the total U.S. motor vehicle production for the years 1996 to 2002, to answer the question.    What was the production in 1996? |  |
| 17. | Use the graph, showing the yearly food costs of a family.  What was the mean cost (to the nearest cent) of food for this family in the 7 years from 1999 to 2005? |  |
| 18. | The graph and table below show the income for a local company. Use this information to predict the income in the year 2005.   |  |  | | --- | --- | | **Year** | **Total Income (in millions)** | | 1980 | $6.3 | | 1985 | $21.5 | | 1990 | $39.8 | | 1995 | $57.4 | | 2000 | $65.3 | |  |
| 19. | The following table gives the population of certain states according to the 2000 census.   |  |  | | --- | --- | | **State** | **Population** | | California | 33,871,648 | | Florida | 15,982,378 | | Michigan | 9,938,444 | | Pennsylvania | 12,281,054 | | Washington | 5,894,121 |   Construct a bar graph from this information. |  |
| 20. | The following pie chart shows the budget for a local company. The total budget is $860,000. Find the amount budgeted in the category of operating expenses. |  |