**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.

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

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|  |  | 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, $57Find 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 |

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| 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. |  |