**Day 5 Homework Math 105**

**Percent Change/Comparisons**

**Average undergraduate costs (tuition, fees, room, board) for full-time students in degree-granting institutions in U.S.**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | **% change from previous year**  |
|  | **4 yr** | **2 yr** | **4yr** | **2yr** |
| 1980-81 | $2,550 | $2,027 |  |  |
| 2000–01 | $8,653 | $4,839 |  |  |
| 2001–02 | $9,196 | $5,137 | 6.3% | 6.2% |
| 2002–03 | $9,787 | $5,601 |  |  |
| 2003–04 | $10,674 | $6,012 | 9.1% | 7.3% |
| 2004–05 | $11,426 | $6,375 | 7.0% | 6.0% |
| 2005–06 |  |  | 6.0% | 1.8% |
| 2006–07 | $12,797 | $6,815 | 5.7% | 5.0% |
| 2007–08 | $13,424 | $6,966 | 4.9% | 2.2% |

National Center for Education Statistics, http://nces.ed.gov/fastfacts/display.asp?id=76, downloaded July 19, 2010

Use the information in the table to answer the following questions.

1. Indicate if each statement is true or false.

\_\_\_ The cost of a 4-year institution in 2004-05 was 107% of the cost in 2003-04.

\_\_\_ The cost of a 4-year institution in 2004-05 was 7% more than the cost in 2003-04.

\_\_\_ The cost of a 4-year institution in 2003-04 was 7% less than the cost in 2004-05.

\_\_\_ The cost of a 4-year institution in 2004-05 was a little less than twice the cost of a 2-

year institution.

\_\_\_ The cost of a 2-year institution in 2004-05 was a little less than half the cost of a 4-

year institution.

1. Estimate the percent change in the cost of 4-year from 1980-81 to 2007-08. Explain your estimation.
2. Calculate the percent of change for 4-year and 2-year institutions from 2002-2003. Show your work below. Fill in the blanks in the table on the front page.
3. Calculate the average cost for 4-year and 2-year institutions in 2005-06. Show your work below. Fill in the blanks in the table on the front page.
4. Calculate the percent difference in 4-year institutions compared to 2- year institutions for the years 1980-81 and 2007-08. Show your work in the space provided and put your answers in the table given below.

 **% Difference in Cost of 4-Year Institutions Compared to 2-Year Institutions**

|  |  |
| --- | --- |
| 1980-81 |  |
| 2007-08 |  |

**For questions 6 – 9, statements about the data on the cost of college are given below. Rewrite or add to each one to make it a better presentation of quantitative data using principles from this course (*hint*: look at your notes from Day 4).**

1. Costs of undergraduate institutions have risen much more for 4-year colleges than for 2-year colleges.
2. From 2004-05 to 2005-06, the cost of 2-year colleges rose only 1.8%.
3. The cost of attending a 4-year institution jumped dramatically in 2003-04 to $10,674.
4. Write 3 statements that compare the 2007-08 cost of 4-year colleges to 2-year colleges in different ways.