1. Convert 2.61 hours to hours, minutes and seconds.

2. Convert 3 hours, 21 minutes and 15 seconds to hours. Put your answer in decimal form to the nearest 0.1 hours.

3. If you drive at 70 miles per hour for 1 hour and 45 minutes how far do you go?

4. How long does it take to drive 270 miles at an average speed of 60 miles per hour?

5. You interview a sample of 100 EMU students and find that 23 smoke a pack or more of cigarettes per day. If the total number of EMU students is 21,000 what is your estimate of the total number of EMU students who smoke a pack or more of cigarettes per day?

6. Assume that $x$ and $y$ are proportional variables. Complete the following table:

<table>
<thead>
<tr>
<th>$x$</th>
<th>7</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>$y$</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

7. A state has a flat tax rate of $r = 4.1\%$. If your income is $36,500 how much tax do you pay to the nearest cent? In the same state, if your tax was $850 what was your income to the nearest cent?

8. In another state with a flat tax rate you paid $473 income tax on an income of $25,600. What is the tax rate. Give your answer as a decimal and as a percent.

9. Calculate $1000(1 + \frac{.20}{4})^{200}$. Give your answer to the nearest 0.1. Express your answer in scientific notation with four significant digits.

10. The side of a rectangle is measured and the result is given as 10.36 feet. How many significant digits are there in this answer? If significant digits are being used correctly what are the smallest and largest possible values for the length of the side?

11. A home increased in value from $95,000 to $98,000. by what percent did the value increase?

12. A sofa is on sale for 10% off the original price of $350. What is the sale price?

13. A sofa is on sale for 85% of its original price of $350. What is the sale price?

14. The original price of a sofe was $350. It’s now selling for $250. By what percent has the priced been reduced? What percent of the original price is the sale price?

15. The CPI in 1925 was 17.5 and it 1995 it was 152.4. In 1925 a house sold for $2200. What is the equivalent amount of money in 1995?

16. What is the slope of the line that goes through the points (2, 5) and (4, 9).

17. Find and equation for the line from the previous problem.

18. A line has slope 4 and goes through the point (9, –1). Find an equation for the line.

19. A line $L$ goes through the point (5, 3) and is parallel to the line whose equation is $y = 4x + 19$. What is the equation of $L$?