

**Appendix A**  
Sample Pre/Post Test

Name: \_\_\_\_\_

Section: \_\_\_\_\_

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**Directions:** Choose the correct answer to each problem. You may find the following formulas helpful in answering some of the questions.

Compound Interest Formula

$$A = P\left(1 + \frac{r}{n}\right)^{ny}$$

Annual Percentage Yield

$$APY = \left(1 + \frac{r}{n}\right)^n - 1$$

Savings Plan Formula

$$A = P \times \left[ \frac{\left(1 + \frac{r}{n}\right)^{ny} - 1}{\frac{r}{n}} \right]$$

Loan Payment Formula

$$PMT = \frac{P\left(\frac{r}{n}\right)}{1 - \left(1 + \frac{r}{n}\right)^{-ny}}$$

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1. According to the *Almanac of Jobs and Salaries*, the average starting salary offered to bachelor's degree candidates in engineering in 2004 was \$32,300, which was down 5% from the previous year. What was the average starting salary offered to bachelor's degree candidates in engineering in the previous year?

- a) \$34,000
- b) \$33,915
- c) \$30,685
- d) \$32,910
- e) I don't know.

2. After looking over your budget, you determine that you can afford at most \$1800 in monthly home mortgage payments. If you can obtain a 30-year home mortgage with an APR of 5.0% compound monthly, what is the largest loan principal you can afford? Round your answer to the nearest dollar.

- a) \$335,307
- b) \$966,279
- c) \$432,000
- d) \$275,000
- e) I don't know.

3. You begin saving for your daughter's college education by depositing \$150 at the end of each month into a savings account with an annual percentage rate of 4.4% compounded monthly. How much will be in the account after 15 years?

- a) \$79,055.11
- b) \$27,000.00
- c) \$38,146.02
- d) \$32,144.02

e) I don't know.

4. You just received a \$750 bill for your credit card, which has an annual interest rate of 18%. Your credit card company uses the unpaid balance method (i.e. charges interest on the unpaid balance) in order to calculate the interest you owe. Suppose you make a \$150 payment now, and make no new charges to your credit card in the next month. What will be the balance on your next credit card bill (a month from now)?

a) \$600.00

b) \$609.00

c) \$612.73

d) \$735.00

e) I don't know.

5. During the week of May 20 - 23, 2004 an ABC News/Washington Post poll was conducted by telephone among a random sample of 1,005 adult Americans. Given pro and con arguments, 63 percent of those polled said the use of torture of prisoners is never acceptable, even when other methods fail and authorities believe the suspect has information that could prevent terrorist attacks. The margin of error of this poll at the 95% confidence level was 3%. Which of the following statements is most accurate?

a) There is a 95% chance that between 60% and 66% of the people surveyed during the week of May 20 -23, 2004 believed that the use of torture of prisoners is never acceptable.

b) There is between a 92% and 98% chance that during the week of May 20 -23, 2004, 63% of all adult Americans believed that the use of torture of prisoners is never acceptable.

c) There is a 95% chance that during the week of May 20 -23, 2004, the actual percentage of all adult Americans who believed that the use of torture of prisoners is never acceptable was between 60% and 66%.

d) During the week of May 20 -23, 2004, the actual percentage of all adult Americans who believed that the use of torture of prisoners is never acceptable was between 58% and 66%.

e) I don't know.

6. Shortly after the first U.S. case of mad cow disease was found in Washington State, a number of facts about the beef industry were reported in various news sources. As reported, 18 billion pounds of beef were consumed in the U.S. in 2003. There are 290 million people in the U.S. Approximately how many pounds of beef were consumed per person in 2003? Be sure to use the correct number of significant digits in your final answer.

a) 62 pounds

b) 62.1 pounds

c) 620 pounds

d) 6.2 pounds

e) I don't know.

7. You have just decided to use the spreadsheet Excel to track all of your automobile related spending. You have entered the appropriate row and column labels and some information about your expenditures. The spreadsheet now looks like:

	A	B	C	D	E	F	G
1	<b>Type of Expense</b>	<b>Amount</b>	<b>Date</b>				
2	Car payment	\$325.79	1/22/04				
3	Car insurance	\$289.00					
4	Gasoline	\$13.80					
5							
6	<b>Total</b>						
7							
8							

Because you have three expenses, all of which were paid in the same day, you do not wish to re-type the same date over again. What command can you use in order to put the date 1/22/04 into cells C3 and C4?

- a) Copy
- b) Copy Down
- c) Fill
- d) Fill Down
- e) I don't know.

8. A study was conducted to find people's average daily calorie consumption in the U.S. It was found that the daily calorie consumption of the people who participated in the study was normally distributed with a mean of 1250 and a standard deviation of 220. Approximately what percent of the people who participated in the study had an average daily calorie consumption between 1250 and 1470 calories?

- a) 47.5%
- b) 34%
- c) 68%
- d) 84%
- e) I don't know.

9. Researchers wish to determine the opinions of people in the 18 - 24-year age group on capital punishment. Which of the following would be the best sample of people to participate in this study?

- a) A random sample of 500 marines in this age group
- b) A random sample of 500 college students in this age group
- c) A random sample of 500 registered voters in this age group
- d) A random sample of 500 persons at a trendy mall in this age group.

e) I don't know.