

5) Rvan is saving for his college tuition. He has \$2,550 in a savings account that pays 6.25% annual interest. How much money does he have at the end of two years?

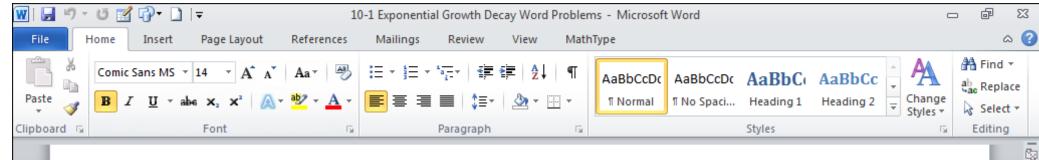
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6) Cars depreciate in value over time. A used car was purchased for \$12,329 this year. Each year the car's value decreases 8.5%. How much is the car worth after five years?

$$(2,329(1-0.085)^5 = 7,907.39$$
 ≈ 7907.39

7) Jeremiah owns a side business detailing cars. His first year he made \$10,500 and each of the following years his profit increased 9%. How much money did he make in three years?

8) There are 128 teams entered in a basketball tournament. Half of the teams are eliminated each round. How many teams are left after 4 rounds?



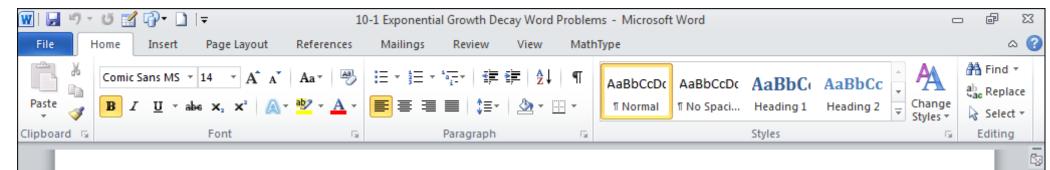
8) There are 128 teams entered in a basketball tournament. Half of the teams are eliminated each round. How many teams are left after 4 rounds?

$$y = 128(1 - 0.50)^4 = 8$$

9) Bacteria in a dirty glass triple every hour. If there are 25 bacteria to start, what is the bacteria count after 1 day?

10) The population of a city of 750,000 people is <u>devastated</u> by an unknown virus that kills 20% of the population per day. How many people are left after a week?

11) There are 1,750,235 acres of forest in northwestern Idaho. One-half percent of the forest is destroyed by pollution every year. How many acres are left after 65 years?



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12) A new lood is estimated to lose 25% of its value every six months after purchase. How much is the value of an lood that costs \$299 after someone has owned it for 2 years? Decay

13) A recent college graduate accepts a job at Google Inc. The job has a salary of \$47,000 and is guaranteed an annual pay increase of 3%. What is the person's salary at the beginning of their 10th year of work?

You fail to