

Chapter 7 Test: Study Guide – Simple Interest ($I=prt$) and Proportional Reasoning

- 1) The formula for simple interest is $I = Prt$. Find the principal (P) if you earn \$300 in interest (I) at a rate of 5% (r) for 6 years (t).

- 2) Rex has some money he wants to deposit into the bank. If he leaves his money in the bank for one year, the bank will pay him 5% interest. How much interest will Rex earn if he deposits \$400? Explain.

- 3) A copy machine produces 80 copies in 5 minutes. How many copies would be produced in 40 minutes?

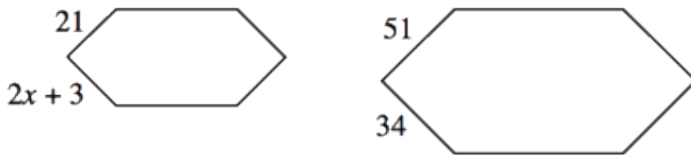
- 4) On a road map, 1 inch represents 30 miles. How many miles would 3.5 inches represent?

- 5) A telephone pole's shadow is 25 feet long at the same time that the shadow of a 6 foot tall man is 5 feet long. How tall is the telephone pole? Be sure to draw a diagram of the situation and write your answer in a sentence.

- 6) Ceylon can swim 4 laps in 5 minutes. At that rate, how many minutes will it take her to swim 22 laps?

- 7) A newspaper carrier can deliver 180 newspapers in three hours. How long would it take the newspaper carrier to deliver 120 newspapers? How do you know? Explain.

- 8) If the two shapes below are similar, calculate the value of x .



- 9) I can't believe I found a bank that will pay 3% simple interest! I'll deposit \$7,500 in the account and leave it there for five years. How much will I have when I take it all out in five years? Show your work.

- 10) If I put \$500 into an account and left it alone for three years earning simple interest, and at the end of three years I withdrew \$650, what interest rate was I earning? Explain.