

Name: _____

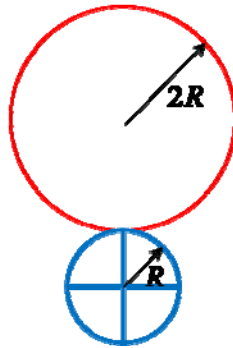
Date: _____

Teacher: _____

School: _____

Moscrop Math Problem Set #1 (April 2010)

1. Given that a small circle of radius “ r ” is rotating clockwise around the outside a larger circle of radius ‘ $2r$ ’ as shown in the diagram, how many rotations does the smaller circle make?



2. Jerry plays on the school basketball team as a small forward. His average score for the last five game is 25pts per game. If he scores an average of 30 points per game for the next three games, what will his overall average be?
3. A square free number is a number that can not be divisible by any perfect squares other than one. For instance, 50 is not a square free number because it is divisible by 25. 10 is a square free number because it is not divisible by any perfect squares other than one. What is the 15th square free number?
4. How many 3 digit numbers contain exactly a digit “2” and a digit “3”?
5. Given that there are 1000 digits in the string of numbers: 2008200820082008.....2008, what is the maximum number of digits that you can take out so that the sum of all the digits will be equal to 2008?