<form><form><form><form><form><form><form><form><form></form></form></form></form></form></form></form></form></form>	CLUB PRACE MATHCOU	OCTOBER CHALLENGE
<text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text>		Name
<form> 1. mor In a building with floors 1 through 7, on which floor would you be if the walk to the first floor? 2</form>	Calculators may be used.	
<text><text><text><text><text><text><text></text></text></text></text></text></text></text>	1. <u>floor</u>	In a building with floors 1 through 7, on which floor would you be if the walk to the seventh floor is twice as long as the walk to the first floor?
 integers How many distinct three-digit positive integers can be written with the digits 1, 2, 3 and 4 if no digit may be used more than once in a three-digit integer? Mhat is the largest possible value of A + B + C + D in the prime factorization tree shown? Image: Operating the digit of the prime factorization tree shown? Image: Operating the digit of the prime factorization tree shown? Image: Operating the digit of the prime factorization tree shown? Image: Operating the digit of the prime factorization tree shown? 	2. <u>biscuits</u>	Beginning with the second day of a seven-day week, Potter ate 4 more dog biscuits each day than he had eaten the previous day. He ate a total of 105 biscuits during the week. How many biscuits did he eat on the fifth day?
 4 What is the largest possible value of A + B + C + D in the prime factorization tree shown? 	3. <u>integers</u>	How many distinct three-digit positive integers can be written with the digits 1, 2, 3 and 4 if no digit may be used more than once in a three-digit integer?
5. sq cm big big big big big big big big big big	4	What is the largest possible value of A + B + C + D in the prime factorization tree shown? A $\begin{pmatrix} 210 \\ A \\ C \\ D \\ 2 \end{pmatrix}$
Copyright MATHCOUNTS Inc. 2007. All rights reserved. MATHCOUNTS Club Program October Challenge	5. <u>sq cm</u>	Each of the 15 small squares in the figure to the left has an area of 6 square centimeters. What is the number of square centimeters in the area of the shaded region?
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