

Mount Rainier Math Invitational
Sixth Grade - February 1, 2008
Team Pressure Round

Put all answers on the colored answer sheet. All fraction answers must be reduced. The first answer submitted is worth 3 points, the second 4 points, ..., and the fifth answer is worth 7 points. You may turn in your answers in any order but each question may only be answered once!

1	Evaluate: $1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{8}$
2	If $a @ b$ equals $\frac{ab + a(b + 2a) - b + a^2 + (a + b)^2}{2}$, what is $\frac{3@4}{6}$?
3	Stacey has three pairs of pants, four shirts, and x pairs of socks. How many pairs of socks does Stacey have if she has 12 outfits? (An outfit is made of a shirt, a pair of pants, and a pair of socks)
4	A regular hexagon ABCDEF is inscribed in circle Q, what is the area of the region inside the circle but outside the hexagon if each side is 6?
5	What is the sum of the first ten prime numbers?