**Mount Rainier Math Invitational**
**Sixth Grade – January 27, 2006**
**Individual Test**

Student Name: _____ Team #: _____
School Name: _____

| Problems 1-20 | | 2 pts each | |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| | Subtotal | | |

| Problems 21-30 | | 3 pts each | |
|---|---|---|---|
| 21 | | | |
| 22 | | | |
| 23 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| | Subtotal | | |

| TOTAL | | |
|---|---|---|

**Mount Rainier Math Invitational**
**Sixth Grade – January 27, 2006**
**Individual Test**
written by Kate Iwamoto and Michelle Fong

Put all answers on the colored answer sheet. All fraction answers must be reduced. You should leave appropriate answers in terms of $\pi$.

| | **Problems 1 through 20 are worth 2 points each** |
|---|---|
| 1 | What is the slope of the line that goes through the points (2,3) and (7,15)? |
| 2 | Jane flips a fair coin three times and gets two heads and one tail. What is the probability of flipping the coin again and getting a head? |
| 3 | What is the probability of rolling a sum of three or twelve when rolling two fair six-sided dice? |
| 4 | What is the volume, in cubic meters, of a box with height 3 meters and a base with area 25 square meters? |
| 5 | What is $111 \cdot 999$? |
| 6 | What is the hypotenuse in a right triangle with bases (legs) 7 cm and 24 cm? |
| 7 | If bananas cost \$0.23 each and Anna has \$2.00, how many bananas can she buy? |
| 8 | If Catherine has the first four Harry Potter books, how many different ways can she arrange them on her bookshelf? |
| 9 | What is 1+1+1+1+1+1+1+1? |
| 10 | Chris played Scrabble four times every four weeks for four years. How many times did he play Scrabble in four years? (Assume that there are 52 weeks in a year.) |
| 11 | What is the positive square root of 35-19? |
| 12 | Kate and Michelle are throwing a Frisbee back and forth. If Michelle always throws a Frisbee so that Kate must walk 5 meters to retrieve it and Kate walks a total 600 meters to retrieve the Frisbee, how many times has Michelle thrown the Frisbee? |
| 13 | What is the sum of the first 20 positive integers? |
| 14 | What percent of 20 is 7? |
| 15 | There are 14 bagels for every 2 bodles, there are 7 bodles to one bickle, and there are 3 bickles to one yodel. How many bagels are in 4 yodels? |
| 16 | What is the sum of the first 14 positive odd integers? |
| 17 | Evaluate: $2+6(4^2)-9/3+16-3(5+2)$ |