

## TMC – 2006 – MATH BOWL

Round 6	Questions	Answers
1.	An apple tree has 11 limbs. Each limb has 4 branches and each branch has 7 apples. How many apples are on the apple tree?	308
2.	What is the sum of the number of faces, edges and vertices of a cube?	26
3.	What is the slope of the line with $y$ -intercept 2 and $x$ -intercept 5?	$-\frac{2}{5}$
4.	Find the exact value of $x$ such that $x^2$ equals $2x-1$ .	1
5.	What is the $y$ -coordinate of the point where the lines $x + 2y = 2$ and $x + 5y = 10$ intersect?	$\frac{8}{3}$
6.	Express 555 as a product of prime numbers.                      37 times 5 times 3 (factors in any order)	
7.	Given concentric circles of radii 3 and 4 respectively, what is the area outside the smaller circle but inside the larger circle?	$7\pi$
8.	A natural number and its reciprocal sum to $\frac{26}{5}$ . What is the number?	5
9.	What is the sum of $2^0, 2^1, 2^2,$ and $2^3$ ?	15
10.	As I was going to St. Ives, I met a man with seven wives. Every wife had seven sacks, every sack had seven cats. Man with cats, sacks, and wives how many did I meet as I was going to St. Ives?	400

### Tie Breakers

1.	What is the least common multiple of 200 and 240?	1200
2.	A right triangle has area 25. If the length of each leg is doubled, what is the area of the new triangle?	100