2011 NORTH CAROLINA MATH COMPETITION

COMPETITION TEST SAMPLE QUESTIONS

(the difficulty of actual test questions will vary according to grade level)

1. MENTAL MATH

1. 23 + 24 + 25 = ____
2. 100 - 76 = ____
3. 5 x 4 x 3 x 2 x 1 = ____
4. 100 / 20 = ____
5. 11/2 + 21/2 + 31/2 = ____
6. 30 / 2 = ____
7. 1/4 of 24 = ____
8. 100% of 17 = ____
9. Half of 99 = ____
10. Half of what number is 71/2 ____
11. Arrange in order: 1, 1, 9/10, 3/100, ½ ____, ____, ____, _____, ____
12. 1/2 + ¼ (a half plus a quarter) = ____
13. 3 is to 6 as 5 is to ____

2. MAGIC SQUARES

12	**3**	**0**	**2**	**1**
100	**24**	**1/2**	**10**	**-1**
15	**1/4**	**21**	**3/4**	**30**
60	**7 1/2**	**0.5**	**0.05**	**50**
98	**1,000**	**7/8**	**1/8**	**99**

Use the numbers above to fill-in the blanks below. Numbers may not be used more than once in a question.

1. _____ + _____ = _____
2. _____ + _____ = _____
3. _____ - _____ = _____
4. _____ x _____ = _____
5. _____ / _____ = _____
6. _____ / _____ = _____
7. _____ + _____ = 0
8. 10 x _____ = 5
9. _____ / ½ = 6
10. _____ is a prime number.
11. _____ is a factor of _____
12. _____ is a multiple of _____

THE COUNTING GAME

1. Count by 2s, starting at 1: 1, ____, ____, ____, ____, ____, ____, ____
2. Count by 10s, starting at 5: 5, ____, ____, ____, ____, ____, ____, ____
3. Count by 3, starting at 1: 1, ____, ____, ____, ____, ____, ____, ____
4. Count by 10s, starting at 7: 7, ____, ____, ____, ____, ____, ____, ____
5. Count by 1/2s, starting at 2: 2, ____, ____, ____, ____, ____, ____, ____
6. Count by 11/2s, starting at 31/2: 31/2, ____, ____, ____, ____, ____, ____, ____
7. Count by 2s, starting at 5: 5, ____, ____, ____, ____, ____, ____, ____
8. Count by 0.5s, starting at 12: 12, ____, ____, ____, ____, ____, ____, ____
9. Count by 4s, starting at 21/2: 21/2, ____, ____, ____, ____, ____, ____, ____
10. Count by 3/4s, starting at 1: 1, ____, ____, ____, ____, ____, ____, ____
11. Count by 5s, starting at 12: 12, ____, ____, ____, ____, ____, ____, ____
12. Count by 1.2s, starting at 1.9: 1.9, ____, ____, ____, ____, ____, ____, ____