## Cullman Middle School Math Tournament 2011 6<sup>th</sup> Grade Test

1.	Evaluate. 3(15 – 2 A) -1	x 4 x 0 x 5) – (3 <sup>2</sup> – 8 B) 2	) C) 44	D) 47				
2.	Find the product of A) 5	the factors in the prir B) 6	ne factorization of 20 C) 60	00. D) 200				
3.	Simplify. $4! + 5!$							
	3! A) 3	B) 20/3	C) 48	D) 24				
4.	Find the millionths of A) 1	digit in the decimal fo B) 2	orm of 3/11. C) 3	D) 7				
5.	What is the smaller A) 7°	angle formed by the B) 70°	hands of a clock at C) 150°	7 pm? D) 210°				
6.	Find 2x <sup>3</sup> y <sup>2</sup> – 5z + 10 A) 3	) if x=1, y= - 2 and z= B) 7	=3. C) 10	D) 19				
7.	Pi Day will be celebrated in math classrooms on Monday, March 14, 2011. What day of the week will it be 314 days from Pi Day 2011? A) Saturday B) Sunday C) Monday D) Tuesday							
8.	Multiply ¼ by the re A) 5	, ,	C) 5/16	D) 4/5				
9.	lf 36 ÷ p =15 – 13 + A) - 6	- 11 – 9 + 7 - 5, find p B) 6	o. C) 30	D) 2				
10.	0. If x*y = 4y + 2x when x = 5 and y = -1 and a∆b = $a^2 - b$ when a = 2 and b = 5,							
	find $x^*y$ divided by a A) – 1		C) – 6	D) 6				
11	.Solve. 5k – 16 = 2 A) 8	4 B) 5	C) 8/5	D) 5/8				
12.	A rectangle has a p A) 6	erimeter of 72. Its w B) 12	ridth is half its length C) 36	. What is its area? D) 288				
13. If L = the least common multiple of 12 and 18 and G = the greatest common factor or 51 and 68, find L – G.								
	A) 5	B) 19	C) 11	D) 35				
14	. Simplify. 31,400,0 A) 3.14	000 ÷ 10,000,000 B) 31.4	C) 314	D) 0.314				
15.	15. Multiply and simplify <u>25</u> • <u>45</u> • <u>14</u> • - <u>1</u> 18 35 15 3							
	A) - 7/9	B) – 5/9	C) 7/9	D) 5/9				

16.	Mary Beth buys movie tickets for herself and five of her friends. If she paid \$5 <sup>r</sup> for the tickets, how much did each one cost?					
	A) \$8	B) \$8.50	C) \$10.20	D) \$51		
17.	Find the sum of the A) 138	e perfect squares bet B) 139	ween 1 and 50. C) 140	D) 2500		
18.		= 1/16, find 25 <sup>½</sup> - 5 <sup>-2</sup> . B) 4 9/10		D) 0		
19.	If P = number of sides in a pentagon, I = the first non-negative integer, D = number of days in a leap year, A = sum of the measures of the angles in a triangle and Y = number of years in a decade, find P + I + D + A + Y. A) 651 B) 652 C) 561 D) 562					
20.	If S = the number of ways you can arrange the letters in the word SNOW andM = the numbers of ways to arrange the letters in the word MAN, find S + M².A) 13B) 27C) 30D) 60					
21.		of choosing a U from all. Round to the ne B) 3.3 %		I, the NCAA national D) 22.6%		
22.	Find the area of the triangle formed by the ordered pairs (2,2), (6,2) and (2,5).					
	A) 6 square units	B) 12 square units	C) 5 square units	D) 24 square units		
23.	If A = the mean of 13 and 27, and B = the median for $\{12, 17, 21, 15\}$ , then what is A + B?					
	A) 56	B) 36	C) 26	D) 39		
24.	Find the surface area of a box (rectangular prism) with the dimensions 3 cm by 5 cm by 8 cm.					
	A) 16 cm <sup>2</sup>	B) 120 cm <sup>2</sup>	C) 158 cm <sup>2</sup>	D) 240 cm <sup>2</sup>		
25.	Find the volume in cubic inches for a box that is $\frac{1}{4}$ yard by 1 foot by 4 inches.					
	4in ¼ yd 1 foot					
	A) 1 in <sup>3</sup>	B) 432 in <sup>3</sup>	C) 12 in <sup>3</sup>	D) 144 in <sup>3</sup>		

Tiebreakers: Please write the tiebreaker answers in the top margins on the back of the Scantron.

Tiebreaker 1: What is the distance between the points (-3, 2) and (3, -6)? Tiebreaker 2: Write 1011011<sub>2</sub> as a base ten numeral. Tiebreaker 3: Simplify:  $-4^{\circ} - 4^{\circ} - (-4)^{\circ}$ .

## Turn in the pink Scantron answer sheet to the monitor. You may keep the test.