

2012 Cindy D. Wright Pizitz Mathematics Tournament
Sixth Grade Ciphering

1.1 Simplify: $\frac{1}{4} + \frac{1}{3} \div 2$.

1.2 Solve: $4y - 6 = 22$.

1.3 Tom had \$1.18 in coins in his pocket. 81¢ fell out of his pocket while he played catch. What is the fewest number of coins that remained in his pocket?

1.4 A box is 6 in. wide, 1 foot high and $\frac{1}{2}$ yd. long. What is its volume in cubic feet?

1.5 Simplify and write in standard notation: $\frac{3.4 \times 10^5}{1.7 \times 10^2}$.

2.1 What is the diameter of a circle that is twice as large as a circle with a radius of 5 inches?

2.2 Evaluate $2a + b^2$, if $a = 3$ and $b = 4$

2.3 A triangle has an area of 56 sq. in. Its base is 8 in. What is its height?

2.4 What is the probability of getting a non-prime number when tossing a decagonal die with sides numbered 1 – 10? Answer with a common fraction.

		1		
	1	1	1	
1	2	1		
	1	3	3	1
1	x	y	z	1

2.5 Given this part of Pascal's triangle, what is $2x - y + z$?

3.1 Simplify: $52 - 2(18 + 12 \div 2)$

3.2 Sam bought his mother a five-pound box of chocolates for Valentine's Day. He ate $\frac{2}{5}$ of the candy. How many ounces of candy were left?

3.3 Solve: $\frac{3}{8} + \frac{3}{4} + x = 2$

3.4 What is the tax on a \$9 purchase if the tax rate is $7\frac{1}{2}\%$? Round to the nearest penny.

3.5 If $A - \#$ means $\frac{A}{B} + \frac{B}{A}$, then what is $3 -$

4.1 If $4j = 28$ and $\frac{k}{3} = 12$, then what is $j + k$?

4.2 Simplify: $-35 + 14 - (-21) + 5(-7)$

4.3 The old woman who lived in a shoe had sons and daughters in the ratio of 5 to 3. If she had 12 daughters, how many children did she have?

4.4 Find the measure of the smaller angle formed by the hour and minute hands at 7:00.

4.5 $(9)^{1/2}$ means $\sqrt{9}$. What is half of $(36)^{1/2}$?

EX1 What is the quotient of 42.63 and 0.7?

EX2 If carpet costs \$4.25 a square foot, how much will it cost to carpet a rectangular room that is 15 ft. by 20 ft.?

EX3 Find the area of a right triangle with side lengths 6, 10 and 8.

