April 2011

Score:

Green Bay West High Elementary Math Bowl
May 13, 2010

Name: _____ **School:** _____

Team Number: _____

Event 1: Arithmetic

1. $\frac{1}{2}+\frac{1}{8}-\frac{1}{4}=$

$\frac{4}{8}+\frac{1}{8}-\frac{2}{8}$

Answer: $\frac{3}{8}$

2. Mary received a 98, 86, 92, 78 on her math tests. What is her test average?

$\overset{2}{98}$
86
92
78
354

$4\overline{)354}$ 88.5
32
34
32
20

Answer: 88.5

3. Substitute the values to find Z when a = 1, b = 2, c = 3, d = 4, e = 5.

$$e^2-\frac{\frac{d}{b}+a+(c\times d)}{e}=Z$$

Answer: 22

$5^2-\frac{\frac{4}{2}+1+(3\times 4)}{5}$

$= 25-\frac{15}{5}^{3} = 25-3 = 22$

4. Using the equation $Distance = Rate \cdot Time$ $(d = r \cdot t)$ answer the following question. You travel at a rate of 48 miles an hour for a time of $\frac{1}{4}$ of an hour and then you travel at a rate of 24 miles an hour for a time of $\frac{1}{6}$ of an hour. What is the total distance that you have traveled?

$48/hr \times \frac{1}{4} = 12$

$24/hr \times \frac{1}{6} = 4$

Answer: 16 miles

Score:

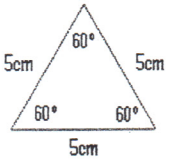
Green Bay West High Elementary Math Bowl
May 13, 2010

Name: _____ **School:** _____

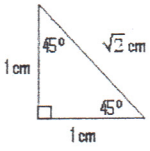
Team Number: _____

Event 2: Geometry

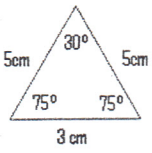
1. Which of the following triangles represents a regular polygon?



A.



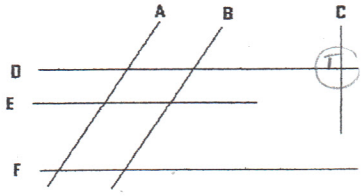
B.



C.

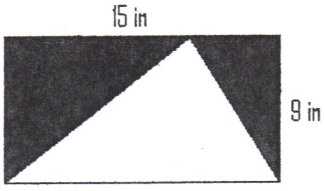
Answer: A

2. Which two roads intersect so that they are perpendicular?



Answer: C & D

3. Find the area of the shaded region.

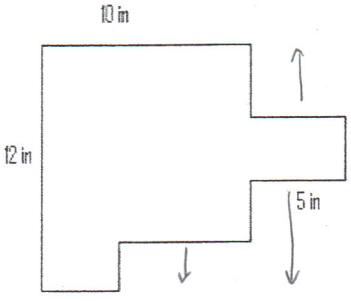


$A_{\square} = 9 \times 15 = 135$

$135 \div 2 = 67.5$

Answer: 67.5 in^2

4. Find the perimeter of the figure below. (Not drawn to scale)



$15 + 15 + 12 + 12$ Answer: 54 in.

Score:

Green Bay West High Elementary Math Bowl
May 13, 2010

Name: _____ **School:** _____

Team Number: _____

Event 3: Random Hat

1. If there are 5 eggs on the table, and you take 2 eggs, how many eggs do *you* have?

Answer: 2

2. If I fold my square blanket exactly in half, the two halves *cannot* be what shape?
   (A) Square (B)Rectangle (C)Triangle

Answer: A

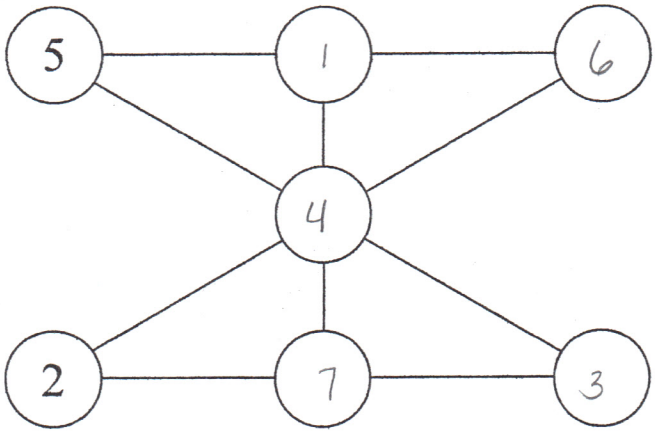
3. If Tara trades Dan 7 Skittles for 2 Tootsie Rolls, then how many Skittles will 14 Tootsie Rolls equal?

7 × 7

$\frac{7}{x} = \frac{2}{14}$

Answer: 49

4. Use the numbers 1-7 to get a sum of 12 along the rows, columns, and diagonals. Each number can only be used once.



Score:

Green Bay West High Elementary Math Bowl
May 13, 2010

Name: _____ **School:** _____

Team Number: _____

Event 4: Problem Solving

1. Jimmy bought 17 notebooks for $1.25 each and 23 pencils for a total of 50 cents. How much did he spend for the notebooks and pencils?

1.25
17
21.25 + 0.50

Answer: 21.75

2. Bradford bought a bag of marbles listed at $3.00. If they were on sale for20% off, how much did he pay for the marbles?

3,00
0.20
.6000

3.00
-0.60
2.40

Answer: 2.40

3. The table below shows the scores for the students on the Wisconsin Math Team. What would Kao have to score for the team to have an average score of 27?

Teammate	Score
Phillip	23
Lisa	18
Juan	27
Melina	31
Kao	?

99

27
x 5
135
-99
36

Answer: 36

4. Phil received 36.7% of the 1000 votes for class president. If Lil received 92 less votes than Phil, what percent of the votes did Lil receive?

1000 x 0.367 = 367
-92
275

Answer: 27.5 %

Score:

Green Bay West High Elementary Math Bowl
May 13, 2010

Name: _____ **School:** _____

Team Number: _____

Team round

1. Place the names Jaques, Bruce, Gill, Flo, Dory, and Nemo in order from left to right based on the information below.

   a) Jaques is on the opposite side of Bruce.
   b) Gill is between Bruce and Flo
   c) Dory is behind Jaques
   d) Nemo is in front of Flo
   e) Jaques is first in line

   Jaques | Dory | Nemo | Flo | Gill | Bruce

2. I have a collection of 14 coins. Some are dimes, some are nickels, and some are pennies. When I count up the money I have 61 cents. How many dimes, nickels, and pennies do I have?

   P = 6 (61 − 6 = 55)
   N = 5 (25, 30)
   D = 3

   Answer: P = 6 N = 5 D = 3

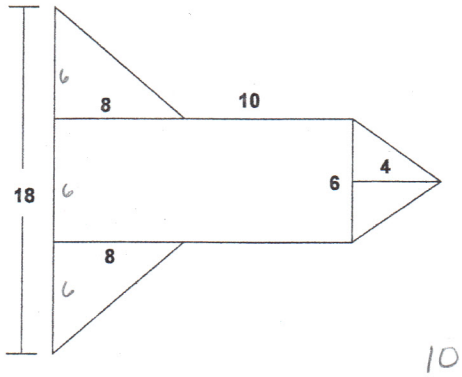
   P = pennies
   N = nickels
   D = dimes

3. You have 5 shapes as shown: (2) + ((4) X ([10] ÷ △5 + [3]))

   Using the numbers 2, 3, 4, 5, 10, place them in the shapes so that using the order of operations, the answer is 22.

   Answer: (2) +((4) X ([10] ÷ △5 + [3]))

4. Calculate the area of the figure below. (Not drawn to scale).



$A_{\square} = 6 \times 18 = 108$

$A_{\triangle} = \frac{1}{2} \times 4 \times 6 = 12$

$2\ A_{\triangle} = 2 \times \frac{1}{2} \times 6 \times 8 = 48$

Answer: 168

108
12
48
168

5. Start with 4
   1. Add two $4 + 2 = 6$
   2. Double your answer 12
   3. Find the product of 2 and 3 6
   4. Add product from step 3 to step 2 $12 + 6 = 18$
   5. Take half your answer from step 4 9
   6. Subtract 2 from your answer in step 5 $9 - 2 = 7$
   7. What is your final answer?

Answer: 7

6. If 5! means 5x4x3x2x1 and 5^3 means 5x5x5. What is $\frac{6!}{6^3}$?

$$\frac{6 \times 5 \times 4^{2} \times 3 \times 2 \times 1}{6 \times 6 \times 6}$$

3

Answer: $10/3$ or $3\ 1/3$