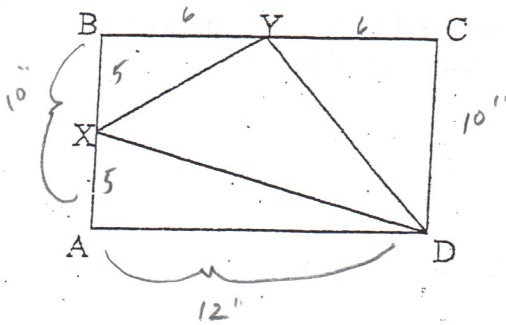


Math Bowl
April 24, 2013

1. If x is a midpoint of BA , and y is the midpoint of BC , what is the area of $\triangle XYD$?
Side BA equals 10 inches and side AD equals 12 inches.



$$10 \cdot 12 = 120 = A_{ABCD}$$

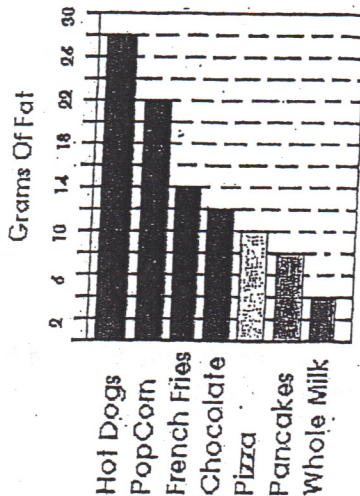
$$A_{\triangle AXD} = \frac{1}{2}(5)(12) = 30$$

$$A_{\triangle BXY} = \frac{1}{2}(6)(5) = 15$$

$$A_{\triangle DCY} = \frac{1}{2}(10)(6) = 30$$

$$120 - 75 = 45$$

2. If you have a hot dog, french fries and a glass of whole milk for dinner, how many total grams of fat did you eat?



$$\begin{array}{r} 28 \\ 14 \\ 4 \\ \hline 46 \end{array}$$

3. Use $<$, $>$, or $=$

$$\frac{3}{40} \cdot \frac{3}{5} \text{ of } \frac{1}{8} \text{ of } 1362 \quad < \quad \frac{4}{9} \text{ of } \frac{2}{3} \text{ of } 1628$$

$$\frac{102}{20} \cdot 2043$$

$$\frac{2043}{20}$$

$$\frac{3}{40} \times \frac{681}{20}$$

$$102.$$

$$\frac{8}{27} \times 1628 = \frac{13024}{27}$$

$$\frac{482}{27} \cdot 13029$$

$$482.$$

4. How many sides on a pentagon?	<u>5</u>
octagon	<u>8</u>
heptagon	<u>7</u>
parallelogram	<u>4</u>
How many angles on a hexagon?	<u>6</u>
square	<u>4</u>

What are the number of sides of a pentagon plus the number of sides of a heptagon plus the number of angles of a hexagon equal to?

18

5. I am a three digit number. The sum of my digits is 21. My tens digit is 9. My ones digit is $\frac{1}{2}$ my hundreds digit. What number am I?

$$2x \quad \underline{9} \quad \underline{x} = \textcircled{894}$$

$$21 - 9 = 12$$

$$x + 2x = 12$$

$$3x = 12$$

$$x = 4$$

6. James races cars for a living. If he wins $\frac{3}{5}$ of the races he attends, and he attends $\frac{3}{4}$ of them, what number does he win of the total 40 races?

$$40 \cdot \frac{3}{4} = 30 \times \frac{3}{5}$$

$$6 \cancel{3}0 \times \frac{3}{\cancel{5}} = \textcircled{18}$$

KEY

Score:

Green Bay West High Elementary Math Bowl
May 12, 2011

Name: KEY School: _____

Team Number: _____

Event 1: Arithmetic

1. Simplify: $4 \cdot \frac{1}{2} \div \frac{1}{2}$

$$4 \times \frac{1}{2} = 2 \div \frac{1}{2} = 4$$

Answer: 4

2. Aaron Rodgers runs for 52, 41, 47, and 56 yards in 4 games. How many yards does he average per game?

$$\frac{52 + 41 + 47 + 56}{4} = 49 \text{ yds per game}$$

Answer: 49 yds/game

3. Simplify: $0.3 + 0.02 - 0.001$

$$.3 + .02 = .32 - .001 = 0.319$$

Answer: 0.319

4. Dora and Boots need to get to Majestic Mountain, which is 10 miles away. They travel at a speed of 4 miles per hour. How many minutes will it take them to get there?
(Time = distance \div speed)

4 mph takes 2.5 hours to go 10 miles

$$2.5 \text{ hrs} = 150 \text{ min}$$

Answer: 150 min

Score:

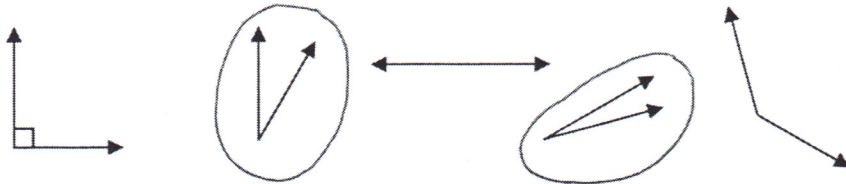
Green Bay West High Elementary Math Bowl
May 12, 2011

Name: Key School: _____

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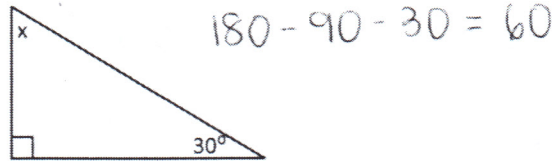
Event 2: Geometry

1. How many acute angles are shown?



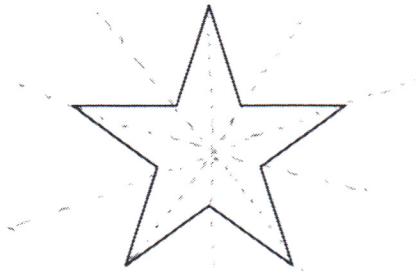
Answer: 2

2. What is the measure of angle x?



Answer: 60°

3. How many lines of symmetry does this shape have?



Answer: 5

4. You have a pan of brownies. Each individual brownie has the same area. Your little brother ate the brownies in the shaded region. Find the area of the remaining brownies.

15
x 9

90
+ 45

135
- 45

90

9
x 5

45

15 in.

9 in.

A 3x5 grid of brownies. The top row has 2 shaded, 1 unshaded, 2 shaded, 1 unshaded, 1 unshaded. The middle row has 1 unshaded, 1 unshaded, 1 unshaded, 1 unshaded, 1 shaded. The bottom row has 1 unshaded, 1 unshaded, 1 unshaded, 1 shaded, 1 shaded.

Answer: 90 in²