January
Math Bowl – Triangles, angles

1. Two angles are supplementary. If the first angle is 10° larger than the second angle, find the measure of both angles.

$10+x$ / x

$10 + x + x = 180$

$10 + 2x = 180$

$-10 \quad -10$

$2x = 170$

$x = 85$

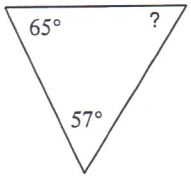
$85° + 95°$

Kuta Software - Infinite Geometry

Angles in a Triangle

Find the measure of each angle indicated.

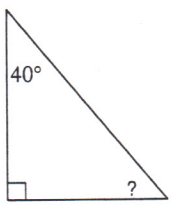
1)



$180 - (65 + 57)$

$= 58°$

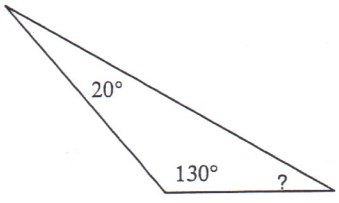
2)



$90 + 40 = 130$

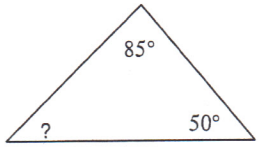
$180 - 130 = 50°$

3)



$180 - (130 + 20) = 30°$

4)

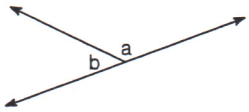


$180 - (85 + 50) = 45°$

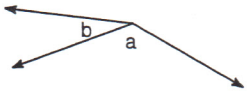
Kuta Software - Infinite Geometry Name_____

Angle Pair Relationships

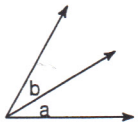
Name the relationship: complementary, ~~linear~~ pair, vertical, or adjacent.

1) 

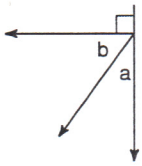
Supplementary

2) 

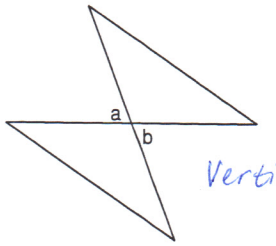
adjacent

3) 

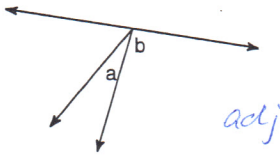
adjacent

4) 

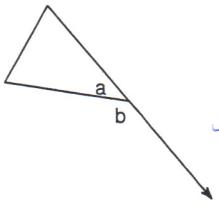
Complementary

5) 

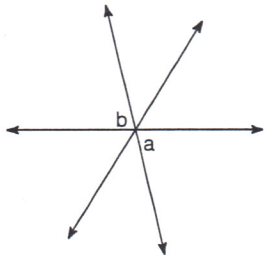
Vertical

6) 

adjacent

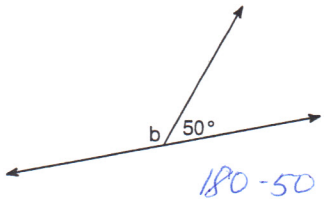
7) 

Supplementary

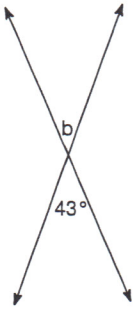
8) 

Vertical

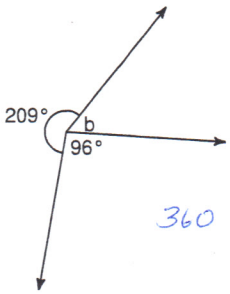
Find the measure of angle b.

9) 

180 - 50 = 130°

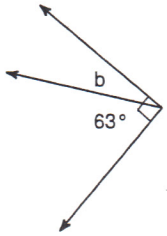
10) 

43°

11) 

360 - 209 - 96 = b

b = 55°

12) 

90 - 63° = 27°

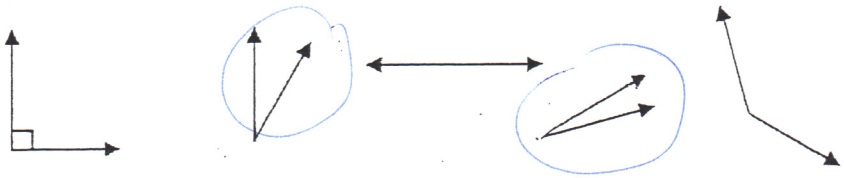
Score: 1/9

Green Bay West High Elementary Math Bowl
May 12, 2011

Name: _____ **School:** _____

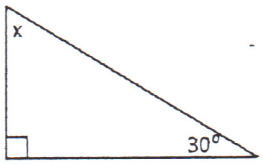
Event 2: Geometry

1. How many acute angles are shown?



Answer: 2

2. What is the measure of angle x?



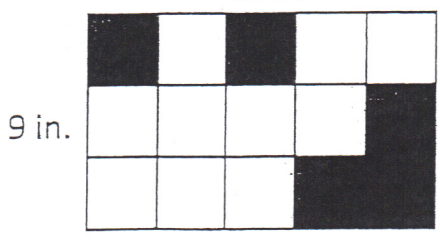
180 - 90 - 30 = 60

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 × 9 = 135

9 × 5 = 45

135
−45
90

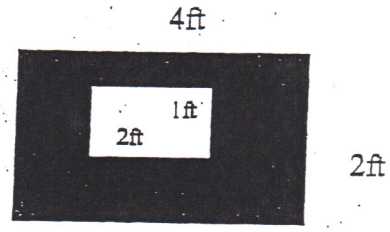
Answer: 90 in²

5. Find the area of the shaded region.

big □ = 4 x 2 = 8

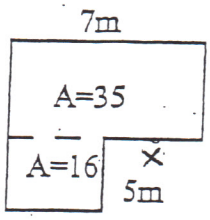
small □ = 1 x 2 = 2 ~~fo~~

8 - 2 = 6



6 ft²

6. The polygon below is divided into two parts. One has an area of 35m² and the other has an area of 16m². Find x.



3.8 m

$\frac{16}{5} = \frac{5}{5} \cdot y$

3.2 = y

7 x 3 x 2 = 3.8