Graded Assignment Acc. Geo
Angle Relationships

Kept — NO corrections

Name Key

1 Write an equation to model the given scenario and then find the two angles.
d the measures of two complementary angles if the difference in their measures is 18.

$\angle 1 + \angle 2 = 90°$

$\angle 1 = \angle 2 - 18$

$\angle 1 = 36°$

$\angle 2 = 54°$

2. Write an equation to model the given scenario and then find the two angles.
If a supplement of an angle has a measure of 78 less than the measure of the angle, what are the measures of the angles?

$\angle 1 + \angle 2 = 180°$

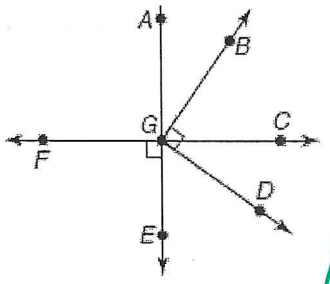
$\angle 1 = \angle 2 - 78$

$\angle 1 = 51°$

$\angle 2 = 129°$

how all work to receive full credit. Be sure to:
, draw a diagram if needed
b.) write a geometric equation
c.) justify your steps!

3. If $m\angle BGC = 16x - 4$ and $m\angle CGD = 2x + 13$, find x so that $\angle BGD$ is a right angle.



$\angle BGC + \angle CGD = \angle BGD$ angle addition

$\angle BGC + \angle CGD = 90$ def of Right ∠

$16x - 4 + 2x + 13 = 90$ Substitution

$18x + 9 = 90$ CLT

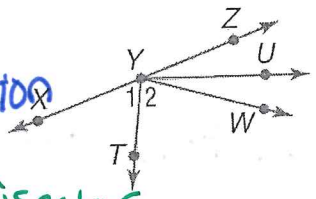
$18x = 81$ subtraction

$x = 4.5$ division

This step was the important one i make sure you see the difference between step 1 & 2

In the figure, $\overrightarrow{YX}$ and $\overrightarrow{YZ}$ are opposite rays. $\overrightarrow{YU}$ bisects $< ZYW$, and $\overrightarrow{YT}$ bisects $< XYW$. Show your work. Justify steps!

4. If $m < WYZ = 74°$ and $m < ZYU = 4r + 30$, find r.



$< ZYU + < UYW = < WYZ$ angle addition

$< ZYU \cong < UYW$ def of $\angle$ bisector

$< ZYU + < ZYU = < WYZ$ substitution

$4r+30 + 4r+30 = 74°$ substitution

$8r+60 = 74°$ CLT

$8r = 14$ subtraction

$r = 1.75$ division

These 3 steps are ideal. It explains each step and doesn't leave room for error.

5. If $m < WYU = 12b + 7$ and $m < ZYU = 9b - 1$, find $m < ZYW$.

did NOT grade.