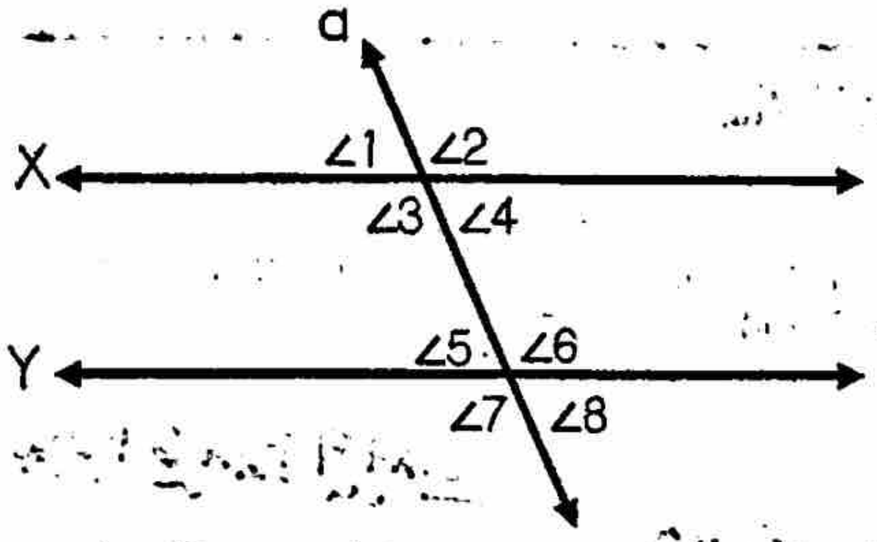
Name: Key Date: _____ Period: ____

ANGLES QUIZ REVIEW - SECTIONS 11.1 AND 11.2

Solve each of the problems below. Be sure to ask questions if you need more help with a topic.

I CAN IDENTIFY ANGLE RELATIONSHIPS WHEN PARALLEL LINES ARE CUT BY TRANSVERSALS. 8.G.5

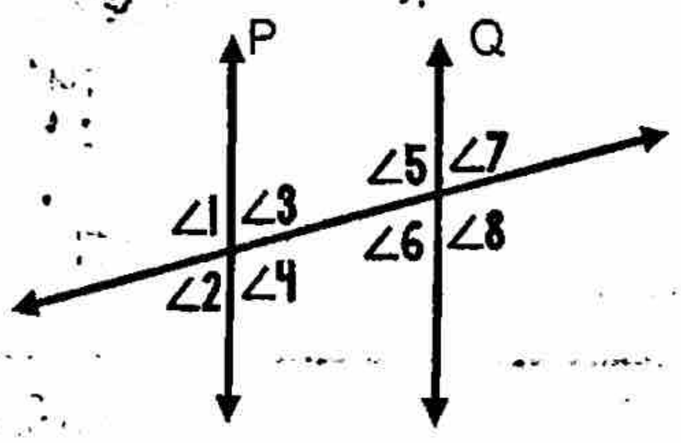
Lines X and Y are parallel lines cut by transversal, a. Identify the type of angle relationship (corresponding, vertical, alternate interior, or alternate exterior) shown in the following pairs of angles.



1. Angle 1 and Angle 8 alternate exterior
2. Angle 6 and Angle 7 vertical
3. Angle 8 and Angle 4 corresponding
4. Angle 3 and Angle 6 alternate interior
5. Angle 1 and Angle 5 corresponding

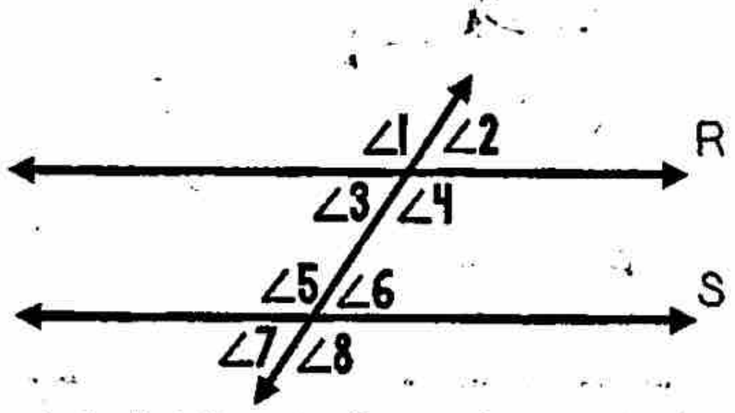
I CAN FIND MISSING ANGLES WHEN PARALLEL LINES ARE CUT BY TRANSVERSALS. 8.G.5

6. Line P is parallel to Line Q. Find the m∠7 if the m∠2 = 75°.



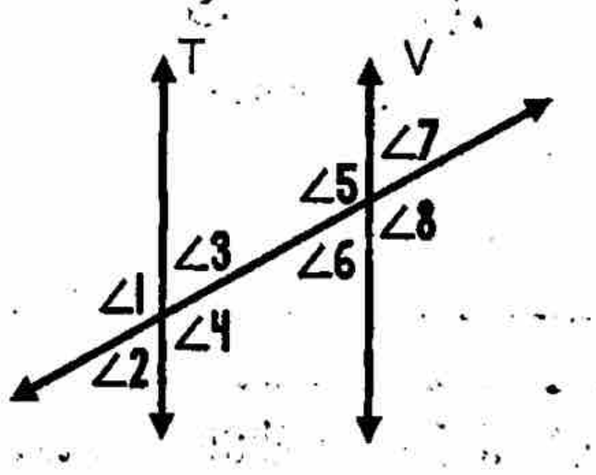
75°

7. Line R is parallel to Line S. Find the m∠8 if the m∠6 = 56°.



124°

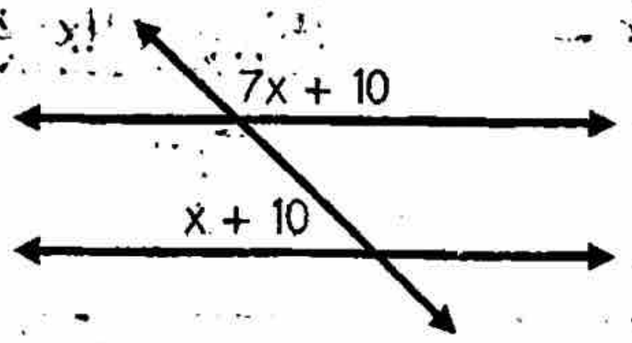
8. Line T is parallel to Line V. Find the m∠3 if the m∠5 = 119°.



61°

I CAN FIND MISSING ANGLES WHEN PARALLEL LINES ARE CUT BY A TRANSVERSAL. 8.G.5

9. In order to find the value of x in the drawing below, Jill and Hank wrote the following equations:

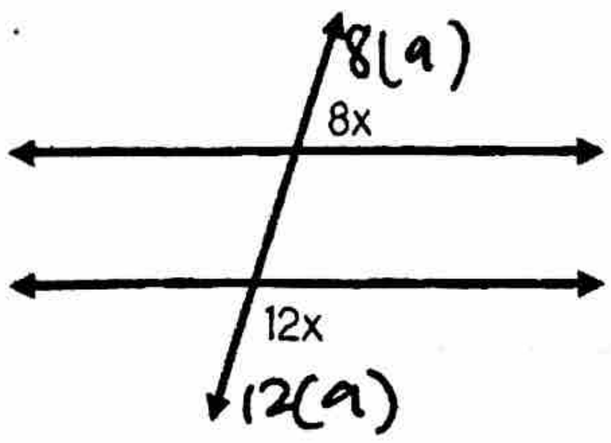


Jill → 7x + 10 = x + 10

Hank → 8x + 20 = 180

Whose equation is correct? Explain your reasoning. Hank. The angles are not congruent. They are supplementary

10. Find the value of x. Then, find the measure of each marked angle.



$8x+12x=180$

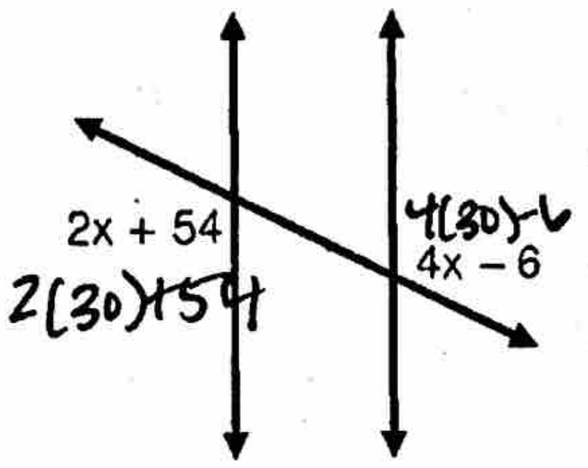
$\frac{20x}{20}=\frac{180}{20}$

$x=9$

x = 9

Angle Measures = 72°, 108°

11. Find the value of x. Then, find the value of each marked angle.



$2x+54=4x-6$

$-2x \quad -2x$

$54=2x-6$

$+6 \quad +6$

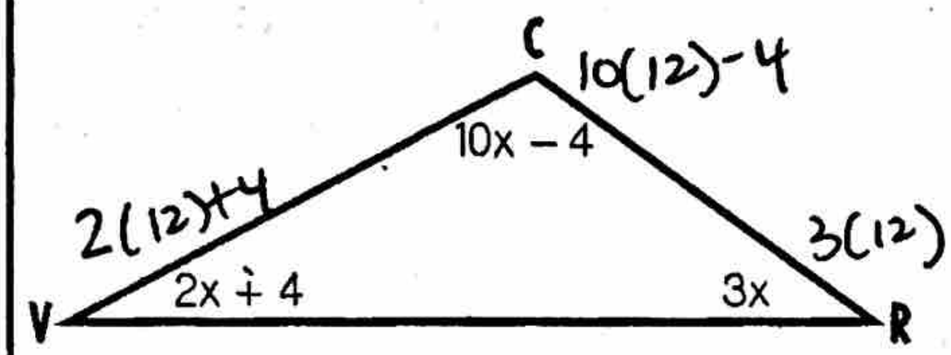
$\frac{60}{2}=\frac{2x}{2}$

x = 30

Angle Measures = 114°

I CAN USE FACTS ABOUT THE ANGLE SUM OF TRIANGLES TO SOLVE PROBLEMS. 8.G.5

12. Write and solve an equation to find the value of x. Then, find the measure of each angle.



$2x+4+10x-4+3x=180$

$\frac{15x}{15}=\frac{180}{15}$

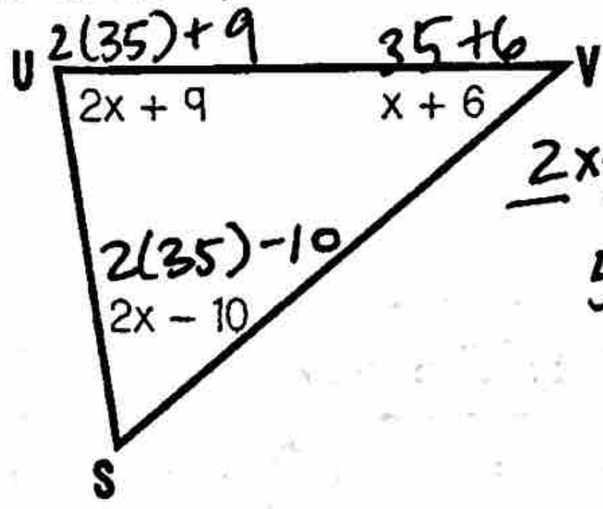
$x=12$

∠V = 28°

∠C = 116°

∠R = 36°

13. Write and solve an equation to find the value of x. Then, find the measure of each angle.



$2x+9+x+6+2x-10=180$

$5x+5=180$

$-5 \quad -5$

$\frac{5x}{5}=\frac{175}{5}$

$x=35$

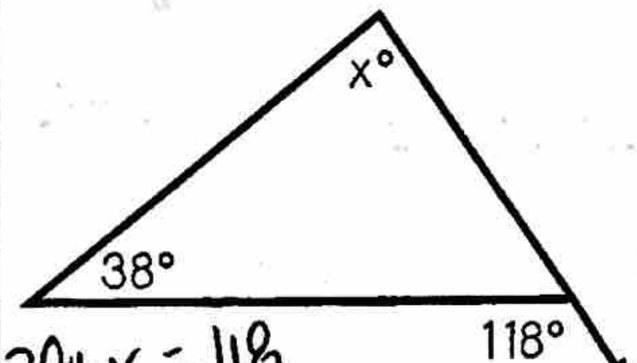
∠S = 60°

∠U = 79°

∠V = 41°

I CAN USE FACTS ABOUT THE EXTERIOR ANGLES OF TRIANGLES TO SOLVE PROBLEMS. 8.G.5

14. Find the value of x.



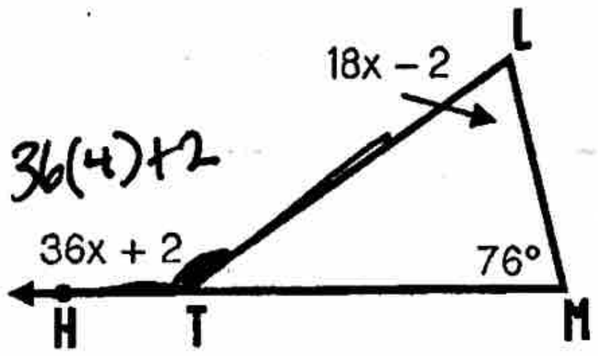
$38+x=118$

$-38 \quad -38$

$x=80$

x = 80°

15 Find the measure of ∠HTL.



$76+18x-2=36x+2$

$74+18x=36x+2$

$-18x \quad -18x$

$74=18x+2$

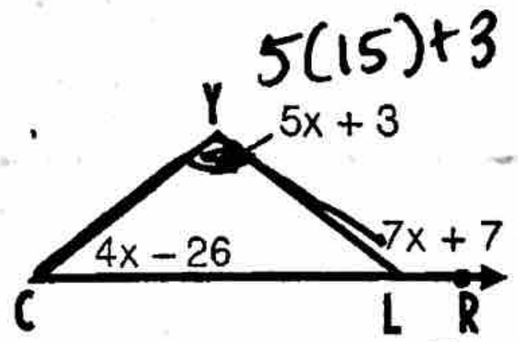
$-2 \quad -2$

$\frac{72}{18}=\frac{18x}{18}$

$4=x$

∠HTL = 146°

16. Find the measure of ∠CYL.



$5x+3+4x-26=7x+7$

$9x-23=7x+7$

$-7x \quad -7x$

$2x-23=7$

$+23 \quad +23$

$\frac{2x}{2}=\frac{30}{2}$

$x=15$

∠CYL = 78°