

Special Angle Pairs – AWS 3

From Chapter 1:

<u>Pairs</u>	<u>Relation</u>	<u>Equation</u>	<u>Description</u>
Vertical	Congruent	$\angle = \angle$	Opposite sides of the x
Linear pair	Supplementary	$\angle + \angle = 180$	Forms 1 line (y)

Supplementary: Big + Little = 180

Congruent: Big=Big or Little = Little

From Chapter 3:

<u>Pairs</u>	<u>Relation</u>	<u>Equation</u>	<u>Description</u>
Alternate Interior	Congruent	$\angle = \angle$	Opposite, both interior
Alternate Exterior	Congruent	$\angle = \angle$	Opposite, both exterior

Alternate = Opposite sides of the transversal

Corresponding	Congruent	$\angle = \angle$	Same side, one each (I/E)
Consecutive Interior	Supplementary	$\angle + \angle = 180$	Same side, both interior

“C” = Same side of the transversal

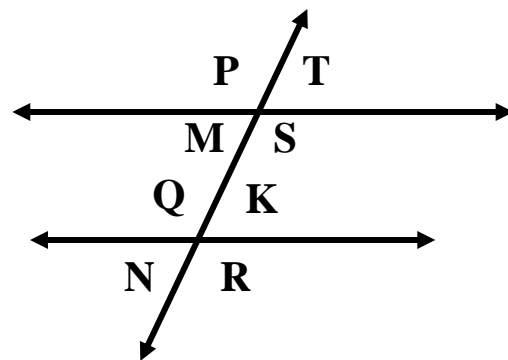
Find all angle pairs in the following diagram:

Vertical Angles:

P and S, M and T
Q and R, K and N

Linear Pairs:

P and T, M and P, M and S, T and S
Q and K, K and R, Q and N, R and N



Alternate Interior

M and K, Q and S

Alternate Exterior

P and R, T and N

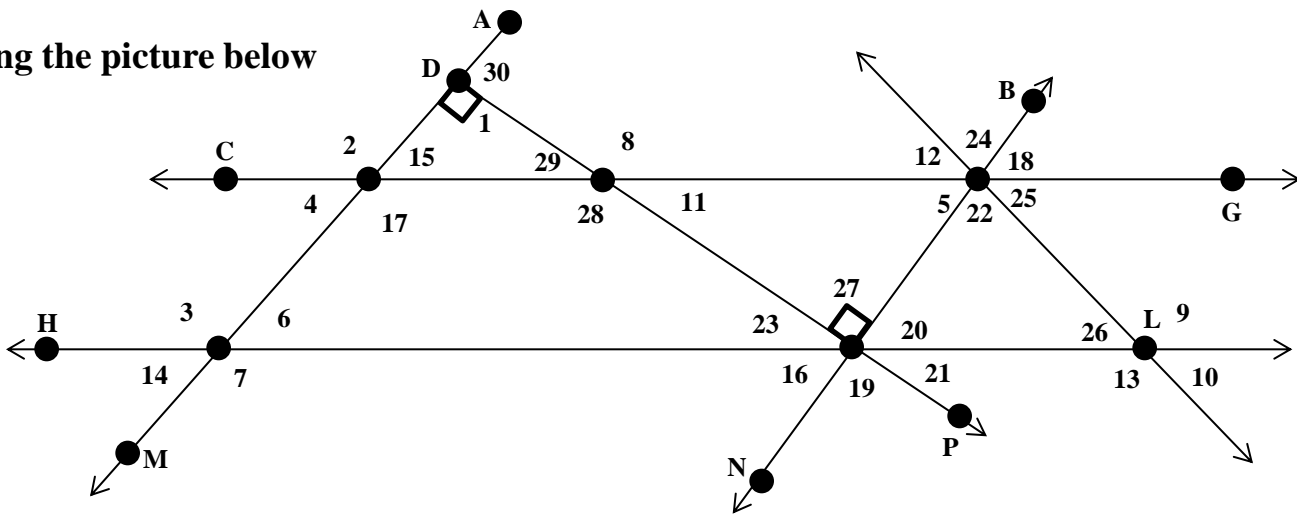
Corresponding

P and Q, T and K
M and N, S and R

Consecutive Interior

M and Q, K and S

Using the picture below



Find the measures of the following angles given that line CG is parallel to line HL and that $m\angle 3 = 139^\circ$ and $m\angle 9 = 133^\circ$: (m is the measure of the angle in degrees)

\angle	m	Reason	\angle	m	Reason
1	___	Right angle symbol	16	___	Vertical angle w/20
2	___	Corresponding w/2	17	___	Vertical angle w/2
3	___	Given in text	18	___	Vertical angle w/5
4	___	Linear pair w/3	19	___	Vertical angle w/27
5	___	Δ 's add to 180 ($\angle 11 + \angle 5 + \angle 27 = 180$)	20	___	Alternate interior w/5
6	___	Linear pair w/3	21	___	Vertical angle w/23
7	___	Vertical angle w/3	22	___	5+22 Alternate interior w/9
8	___	Linear pair w/29	23	___	Δ 's add to 180 ($\angle 1 + \angle 6 + \angle 23 = 180$)
9	___	Given in text	24	___	Vertical angle w/22
10	___	Vertical angle w/26	25	___	Consecutive interior w/9
11	___	Vertical angle w/29	26	___	Linear pair w/9
12	___	Vertical angle w/25	27	___	Right angle symbol
13	___	Vertical angle w/9	28	___	Vertical angle w/8
14	___	Vertical angle w/6	29	___	Δ 's add to 180 ($\angle 1 + \angle 15 + \angle 29 = 180$)
15	___	Vertical angle w/4	30	___	Linear pair w/1

Bonus:

Name two rays in the picture: _____ and _____

Besides a triangle, what other polygon is in the figure: _____

Name two things that are parallel, besides what was given: _____ and _____