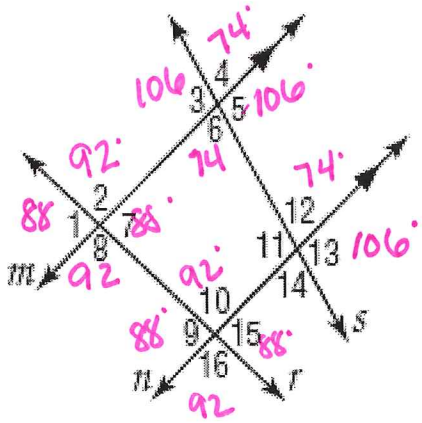
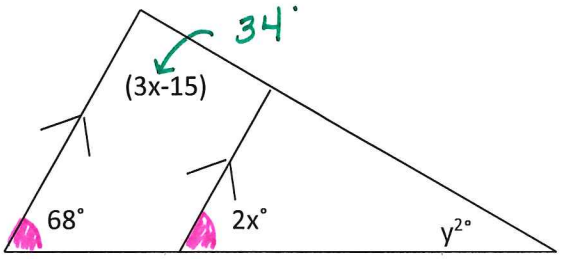
Acc Geo
Angles and Parallel Lines

Name Key

1. **In the figure, $m\angle 2 = 92$ and $m\angle 12 = 74$. Find th of each angle.**



2. Find the value of x and y

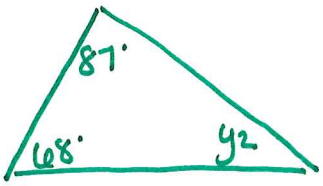


$68° = 2x$

$\boxed{34° = x}$

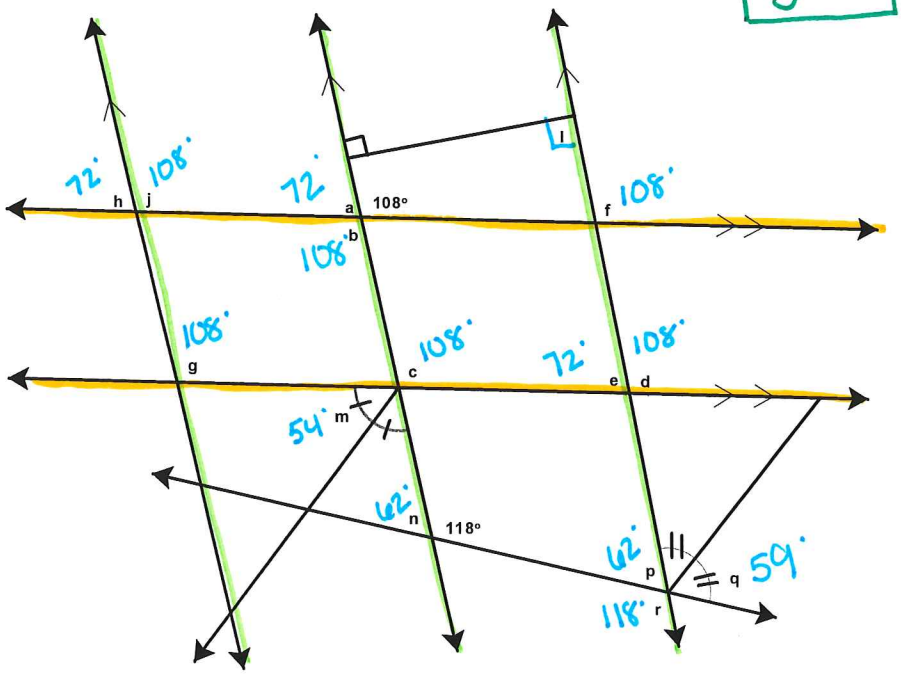
corresponding ∠s are ≅

$3(34) - 15$
$= 87°$



$y^2 + 68 + 87 = 180°$ △ sum theorem
$y^2 + 155 = 180$
$y^2 = 25$
$\boxed{y = \pm 5}$

3.



In the figure, $m\angle 2 = 92$ and $m\angle 12 = 74$. Find the measure of each angle.

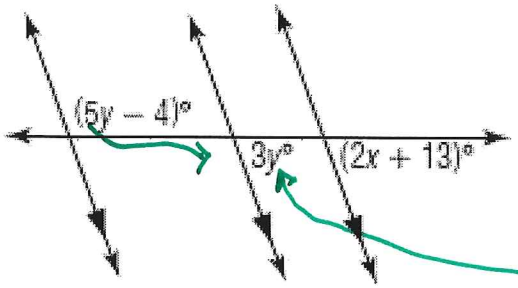
1) m∠8

2) m∠5

3)m∠13

Same as starting warmup.

4) Find the measure of x and y:



$5y-4+3y=180°$ linear pairs are suppl.

$8y-4=180°$

$8y=184$

$\boxed{y=23}$

$3(23)=69°$

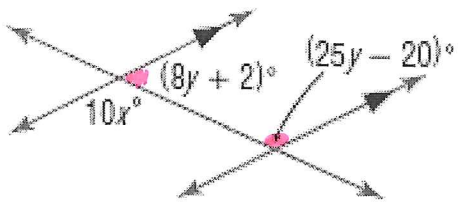
$69=2x+13$ corresponding ∠s are ≅

$56=2x$

$\boxed{28=x}$

Find x and y in each figure.

5.



$8y+2+25y-20=180$ consecutive int. ∠s are suppl.

$33y-18=180$

$33y=198$

$\boxed{y=6}$

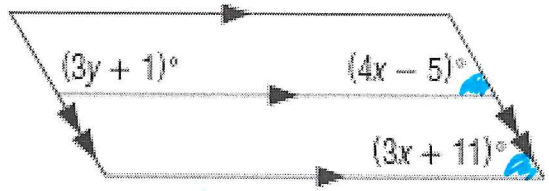
$10x=25y-20$ alt. int ∠s are ≅

$10x=25(6)-20$

$10x=130$

$\boxed{x=13}$

6.



$4x-5=3x+11$ corresp. ∠s are ≅

$x-5=11$

$\boxed{x=16}$

consecutive int. ∠s are suppl.

$3y+1+4x-5=180$

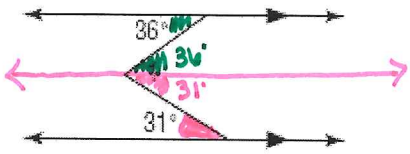
$3y+1+4(16)-5=180$

$3y+60=180$

$3y=120$

$\boxed{y=40}$

7. Find the measure of <1.



$<1=36+31°$

$\boxed{<1=67°}$