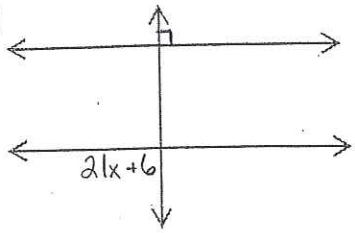
NAME:_____ DATE:_____ HOUR: 1st

Section 3.2 Review

For each of the following use what we know about vertical angles, linear pairs, and our new properties with parallel lines to solve for x and y.

1)

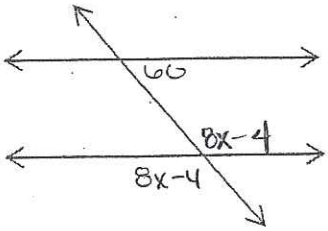


$21x+6=90$

$21x=84$

$\boxed{x=4}$

2)



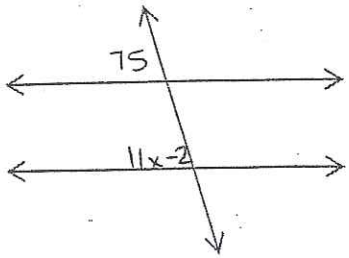
$60+8x-4=180$

$56+8x=180$

$8x=124$

$\boxed{x=15.5}$

3)

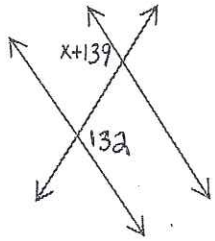


$11x-2=75$

$11x=77$

$\boxed{x=7}$

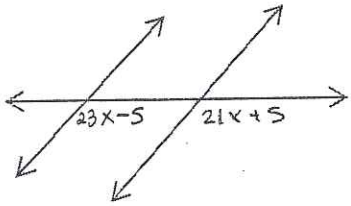
4)



$x+139=132$

$\boxed{x=-7}$

5)

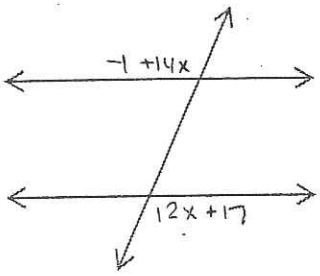


$23x-5=21x+5$

$2x=10$

$\boxed{x=5}$

6)

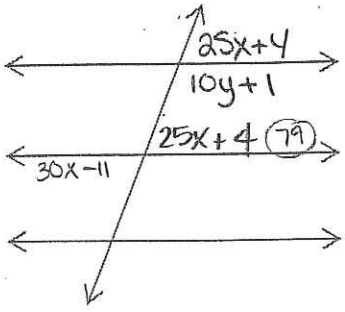


$12x+17=-1+14x$

$18=2x$

$\boxed{9=x}$

7)



$25x+4=30x-11$

$15=5x$

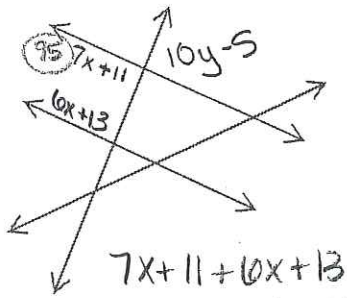
$\boxed{3=x}$

$79+10y+1=180$

$10y=100$

$\boxed{y=10}$

8)



$7x+11+6x+13=180$

$13x+24=180$

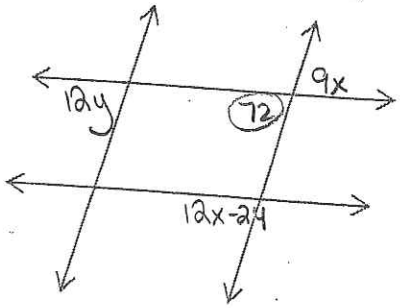
$13x=156$

$\boxed{x=12}$

$95=10y-5$

$100=10y$ $\boxed{10=y}$

9)



$9x=12x-24$

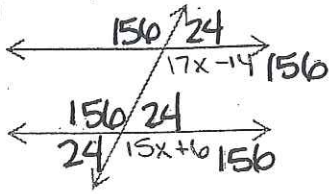
$-3x=-24$

$\boxed{x=8}$

$12y=72$ $\boxed{y=6}$

For each of the following use what we know about vertical angles, linear pairs, and our new properties with parallel lines to solve for x. Once you know x also solve for all the angles in the image!!!

10)

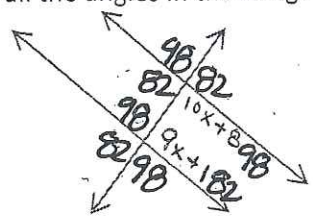


$17x-14=15x+6$

$2x=20$

$\boxed{X=10}$

11)



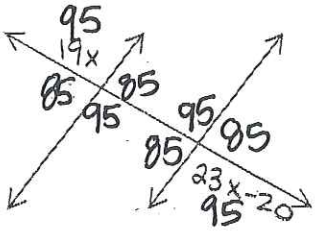
$10x+8+9x+1=180$

$19x+9=180$

$19x=171$

$\boxed{X=9}$

12)

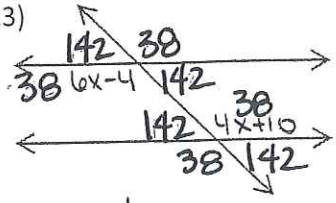


$23x-20=19x$

$-20=-4x$

$\boxed{5=x}$

13)

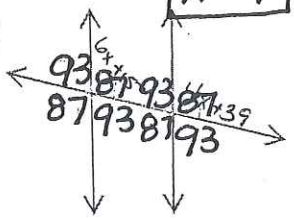


$6x-4=4x+10$

$2x=14$

$\boxed{X=7}$

14)

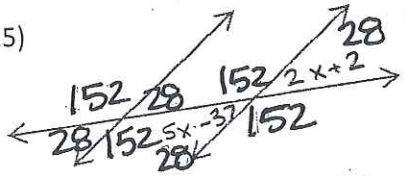


$6x+15=4x+39$

$2x=24$

$\boxed{X=12}$

15)

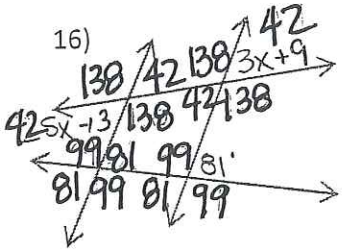


$5x-37=2x+2$

$3x=39$

$\boxed{X=13}$

16)

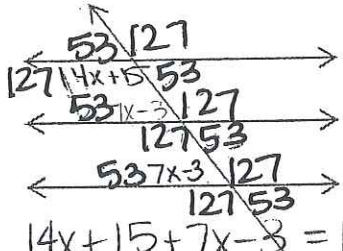


$5x-13=3x+9$

$2x=22$

$\boxed{X=11}$

17)



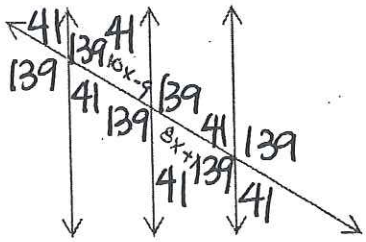
$14x+15+7x-3=180$

$21x+12=180$

$21x=168$

$\boxed{X=8}$

18)



$10x-9=8x+1$

$2x=10$

$\boxed{X=5}$