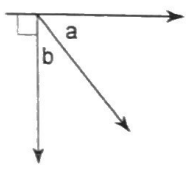
Algebra I 12/18/19

Name _____ ID: 2

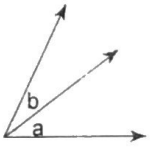
Unit 8 - Final Exam Review #2

Date _____ Period ____

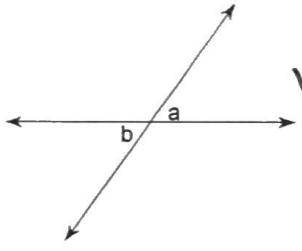
Name the relationship: complementary, linear pair, vertical, or adjacent.

1) 

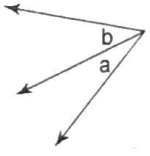
complementary

2) 

adjacent

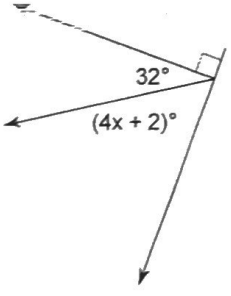
3) 

vertical

4) 

adjacent

Find the value of x.

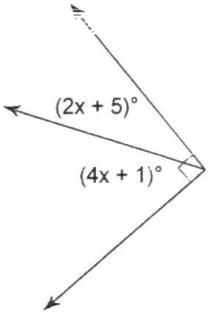
5) 

$32+4x+2=90$

$4x+34=90$

$4x=56$

$x=14$

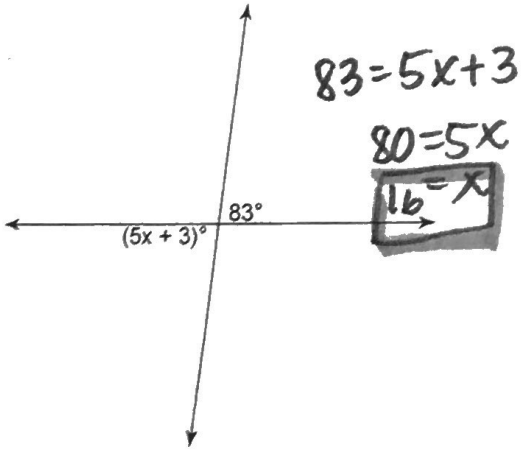
6) 

$2x+5+4x+1=90$

$6x+6=90$

$6x=84$

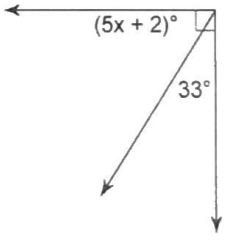
$x=14$

7) 

$83=5x+3$

$80=5x$

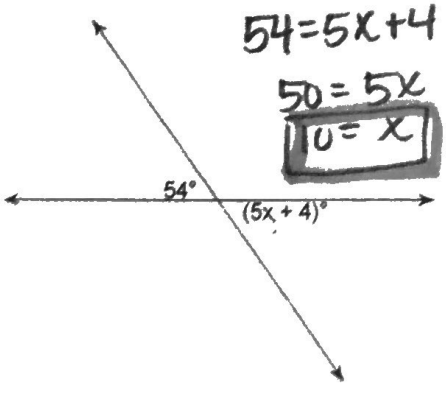
$16=x$

8) 

$5x+35=90$

$5x=55$

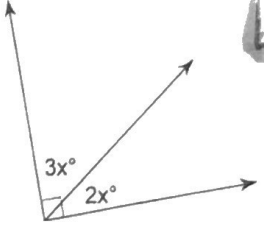
$x=11$

9) 

$54=5x+4$

$50=5x$

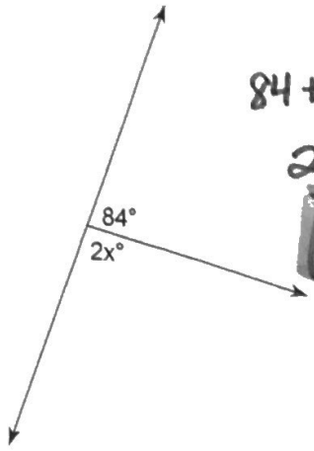
$10=x$

10) 

$5x=90$

$x=18$

11)

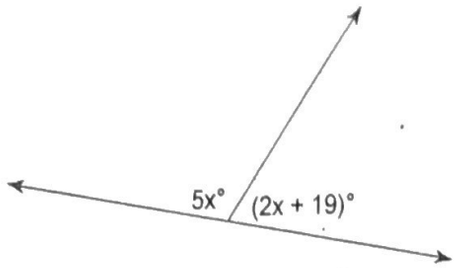


$84 + 2x = 180$

$2x = 96$

$x = 48$

12)



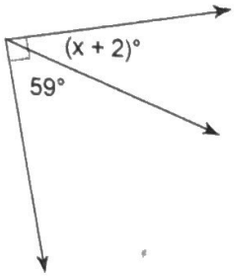
$5x + 2x + 19 = 180$

$7x = 161$

$x = 23$

$\frac{161}{7} = \frac{23}{1}$

13)

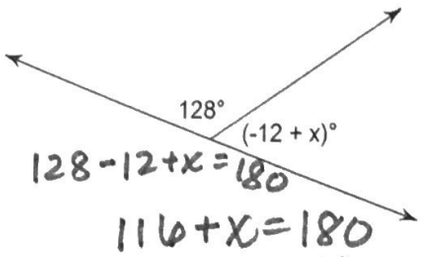


$x + 2 + 59 = 90$

$x + 61 = 90$

$x = 29$

14)



$128 - 12 + x = 180$

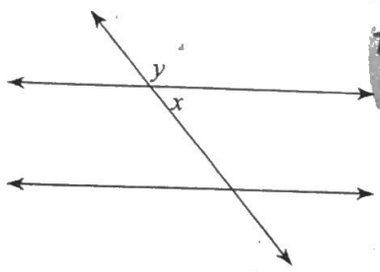
$116 + x = 180$

$-116 \quad -116$

$x = 64$

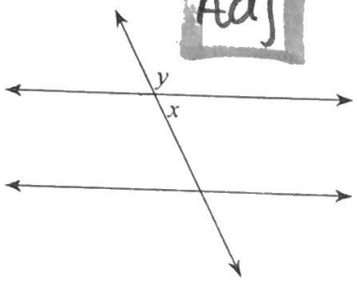
Identify each pair of angles as corresponding, alternate interior, alternate exterior, same-side interior, vertical, or adjacent.

15)



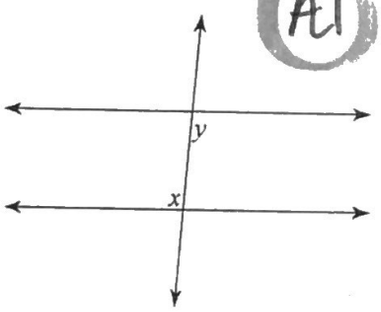
Adj

16)



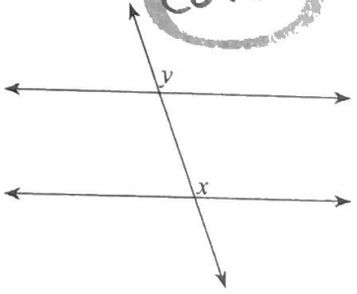
Adj

17)



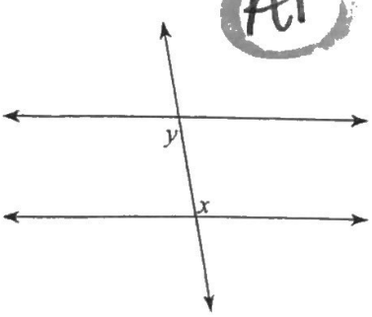
Alt

18)



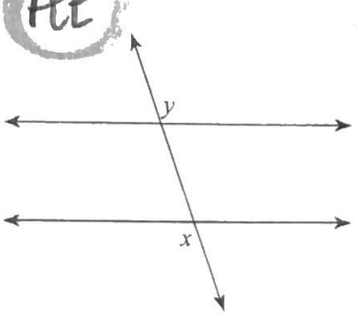
Corr

19)



Alt

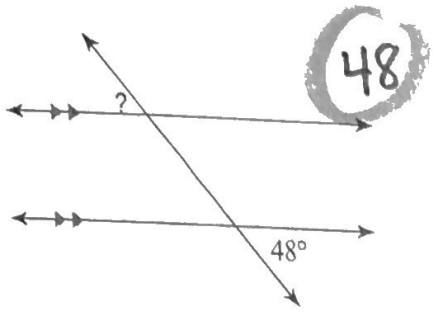
20)



AE

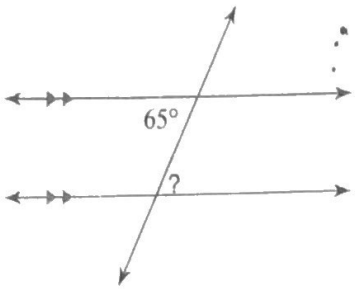
Find the measure of each angle indicated.

21)



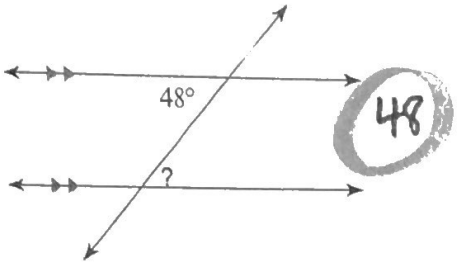
48

22)



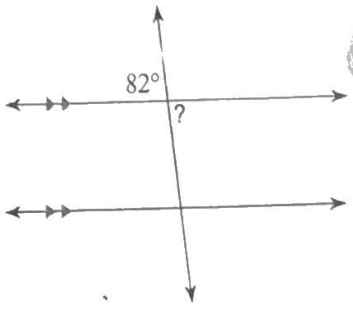
65

23)



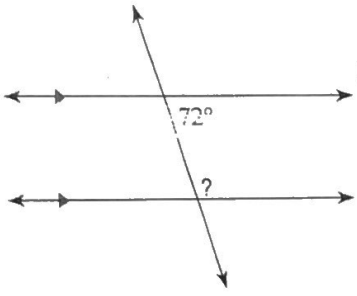
48

24)



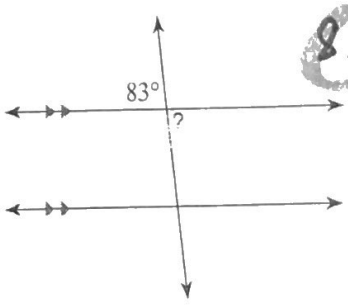
82

25)



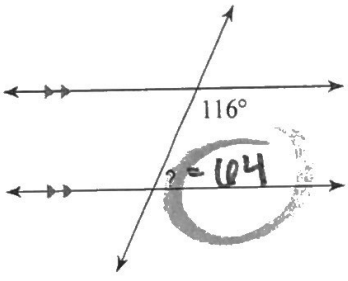
108

26)



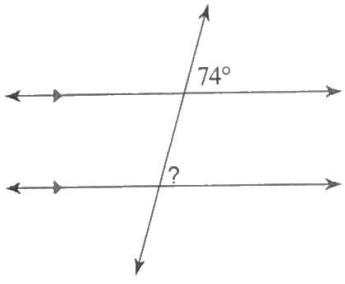
83

27)



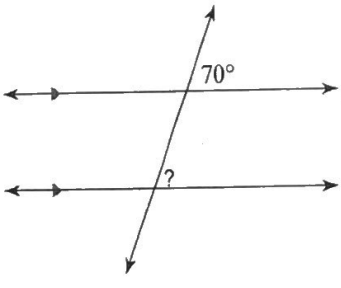
? = 104

28)



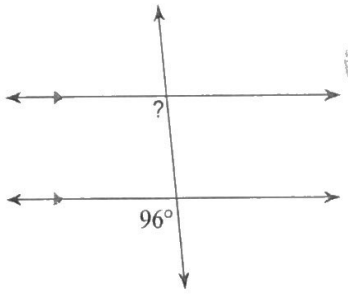
74

29)



70

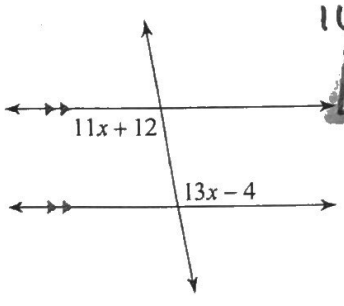
30)



96

Solve for *x*.

31)

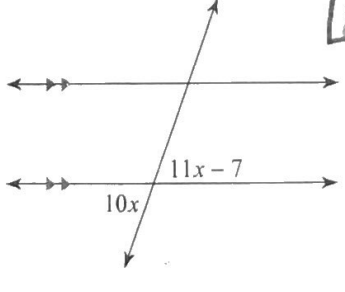


$11x + 12 = 13x - 4$

$16 = 2x$

$8 = x$

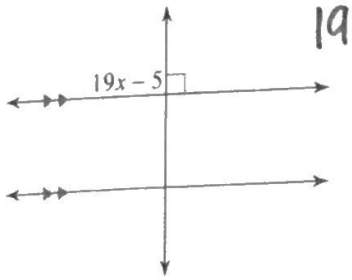
32)



$11x - 7 = 10x$

$x = 7$

33)

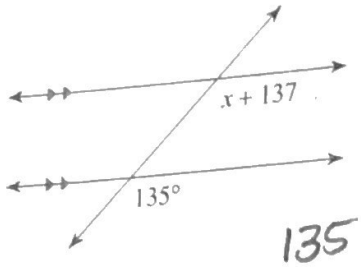


$19x-5=90$

$19x=95$

$x=5$

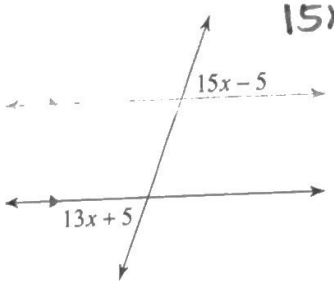
34)



$135=x+137$

$x=-2$

35)

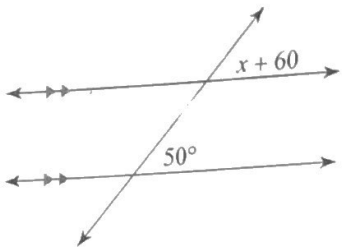


$15x-5=13x+5$

$2x=10$

$x=5$

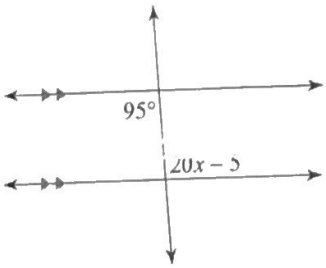
36)



$x+60=50$

$x=-10$

37)

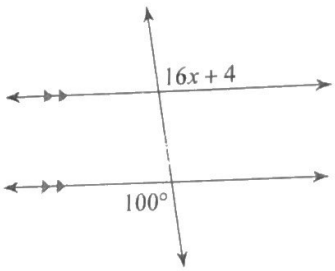


$95=20x-5$

$100=20x$

$x=5$

38)

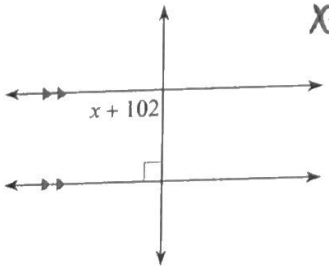


$16x+4=100$

$16x=96$

$x=6$

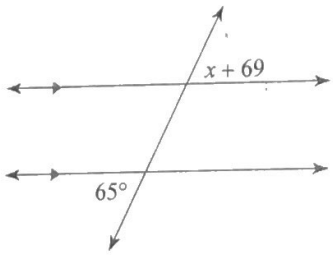
39)



$x+102=90$

$x=-12$

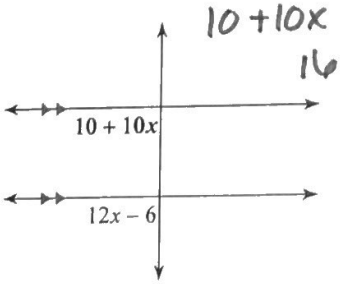
40)



$x=-4$

Find the measure of the angle indicated in bold.

41)



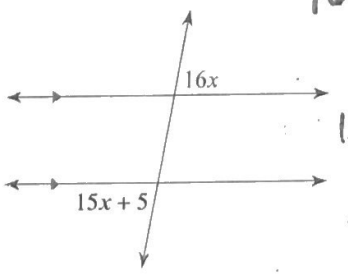
$10+10x=12x-6$

$16=2x$

$x=8$

$90°$

42)



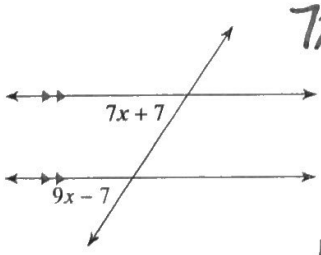
$16x=15x+5$

$x=5$

$15(5)+5$

$80°$

43)



$7x+7=9x-7$

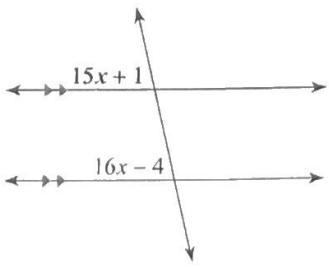
$2x=14$

$x=7$

$49+7$

$56°$

44)

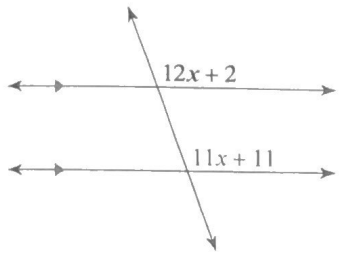


$15x+1=16x-4$

$5=x$

$76°$

45)



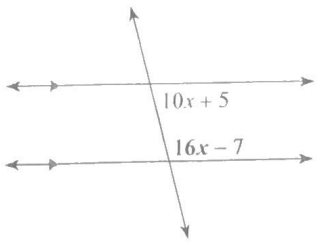
$12x+2=11x+11$

$1x=9$

$x=9$

$110°$

46)



$10x+5+16x-7=180$

$26x-2=180$

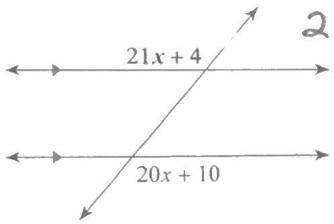
$26x=180$

$x=7$

$16(7)-7$

105

47)

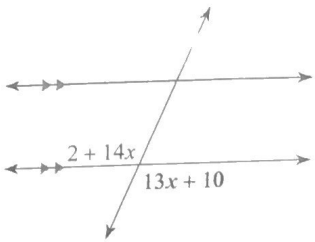


$21x+4=20x+10$

$x=6$

$130°$

48)

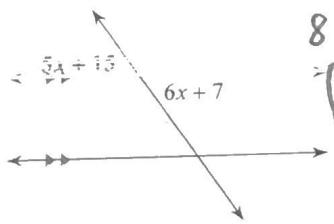


$2+14x=13x+10$

$+8=x$

$114°$

49)

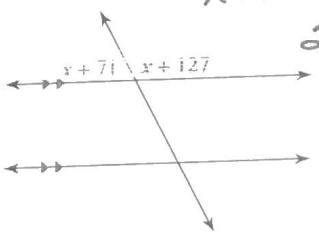


$5x+15=6x+7$

$8=x$

$55°$

50)



$x+71+x+127=180$

$2x+198=180$

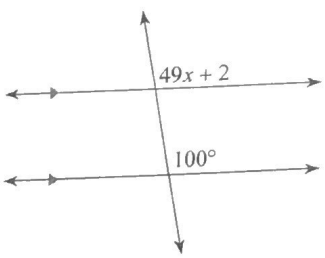
$2x=-18$

$x=-9$

$118°$

Solve for x.

51)

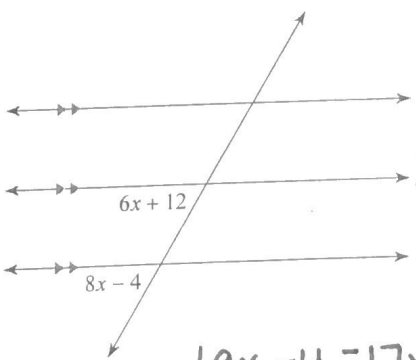


$49x+2=100$

$49x=98$

$x=2$

52)

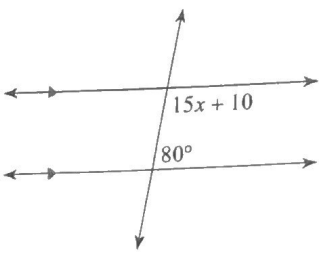


$6x+12=8x-4$

$2x=16$

$x=8$

53)

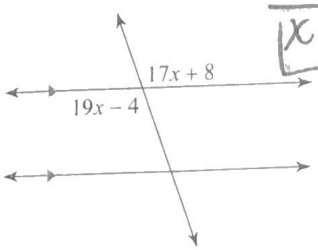


$15x+10+80=180$

$15x=90$

$x=6$

54)

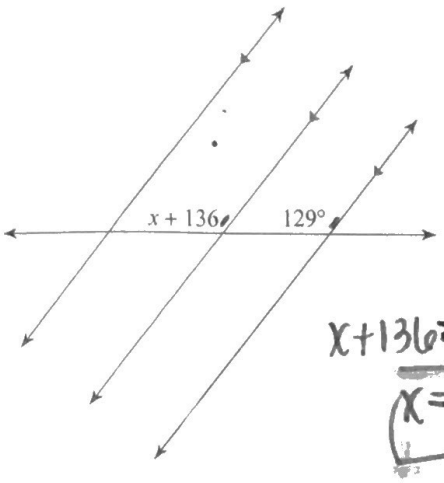


$19x-4=17x+8$

$2x=12$

$x=6$

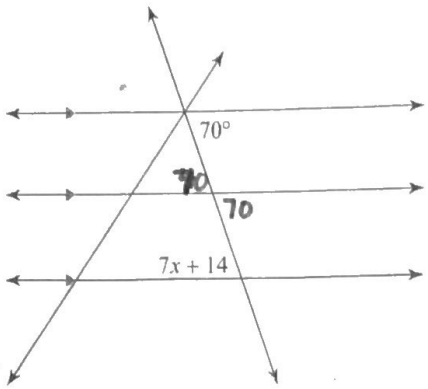
55)



$x+136=129$

$x=-7$

56)

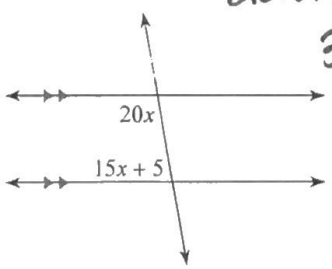


$7x+14=70$

$7x=56$

$x=8$

57)

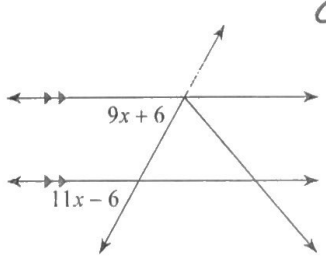


$20x+15x+5=180$

$35x=175$

$x=5$

58)

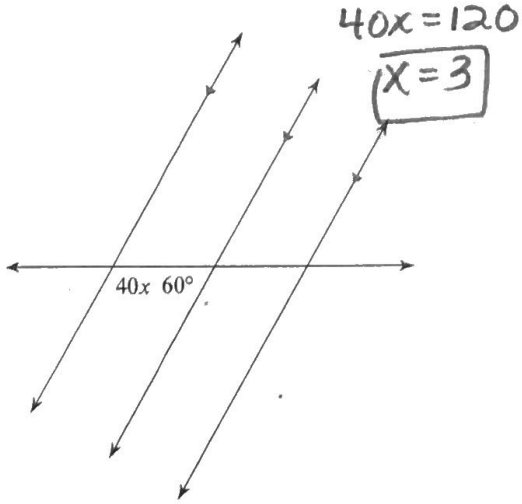


$9x+6=11x-6$

$12=2x$

$6=x$

59)

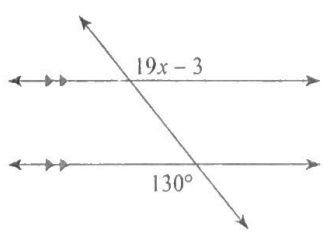


$40x+60=180$

$40x=120$

$x=3$

60)



$19x-3=130$

$19x=133$

$x=7$