Name: KEY

Common Core Geometry

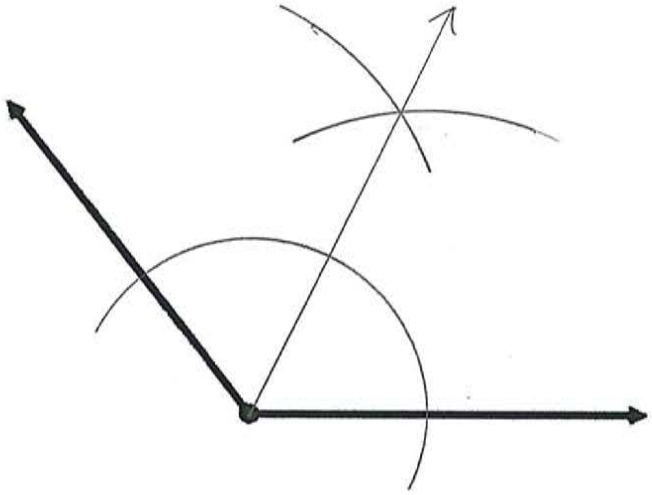
Date: _____

Period: _____

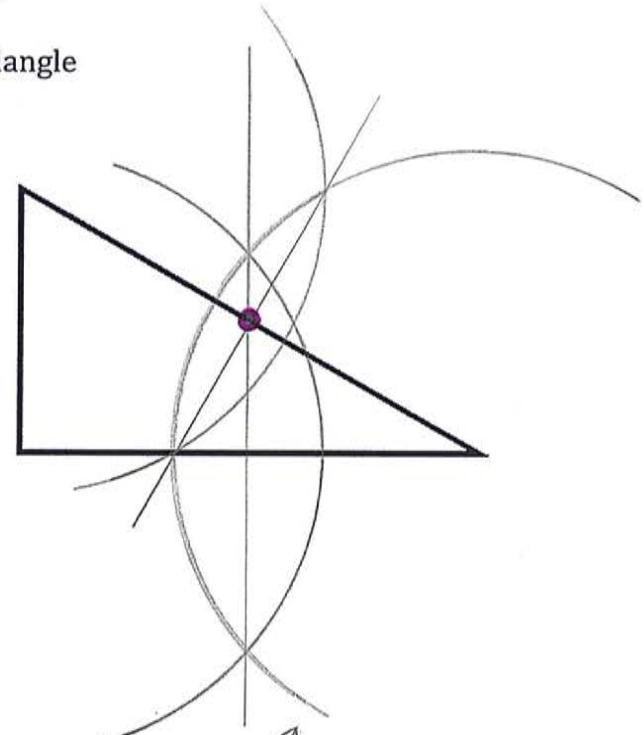
Chapter 2 REVIEW

I. Constructions

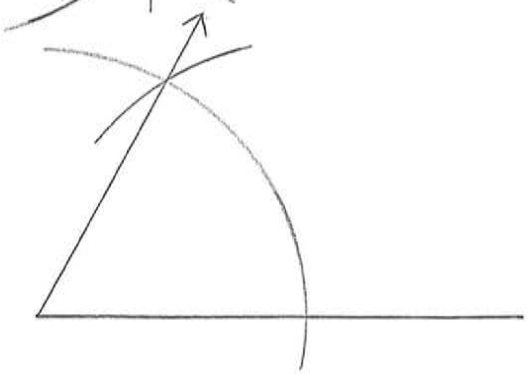
1. Construct an angle bisector for the given angle



2. Find the circumcenter of the triangle

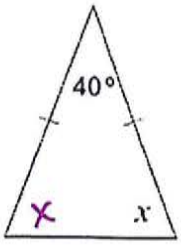


3. Copy the given angle



II. Find the value of x

4.



$x + x + 40 = 180$

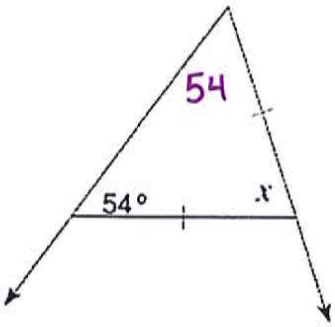
$2x = 140$

$x = 70$

5.

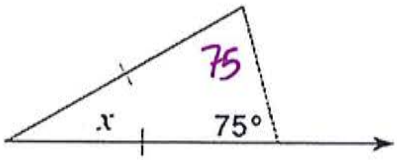
$x = 75$

6.



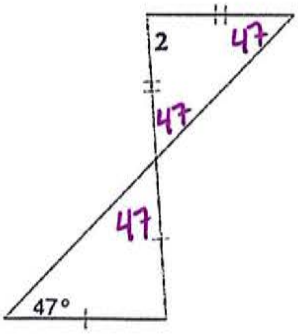
$180 - 54 - 54 = 72$

7.



$x = 30$

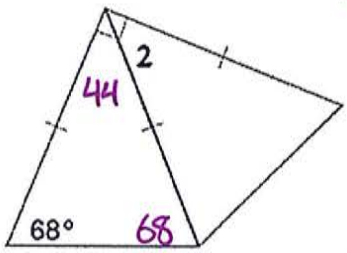
8. $m\angle 2 = x + 94$



$x + 94 + 47 + 47 = 180$

$x = -8$

9. $m\angle 2 = 4x - 2$

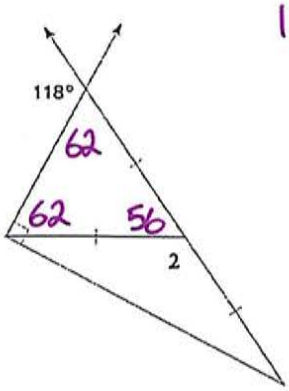


$4x - 2 + 44 = 90$

$4x = 48$

$x = 12$

10. $m\angle 2 = 12x + 4$

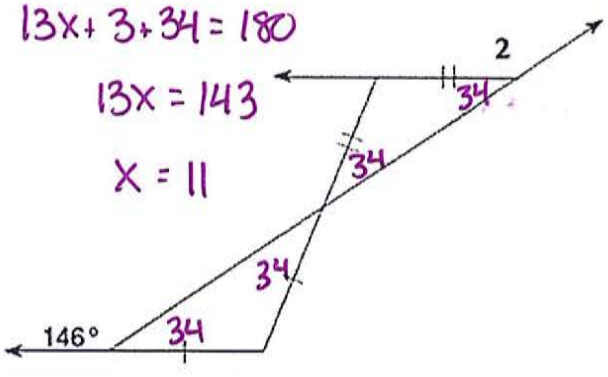


$12x + 4 + 56 = 180$

$12x = 120$

$x = 10$

11. $m\angle 2 = 13x + 3$

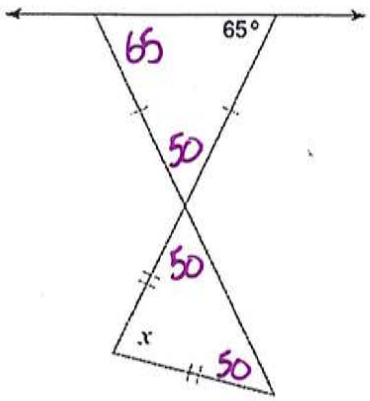


$13x + 3 + 34 = 180$

$13x = 143$

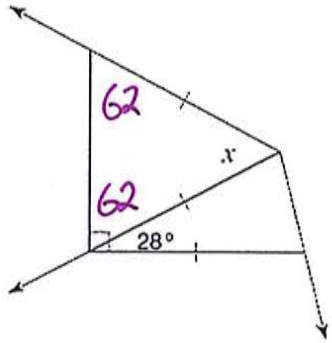
$x = 11$

12.



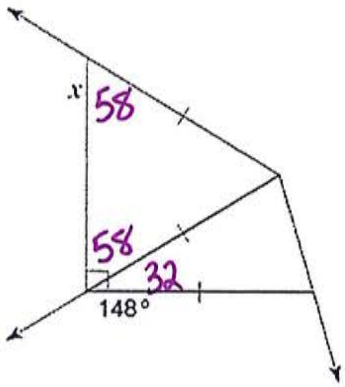
X=80

13.



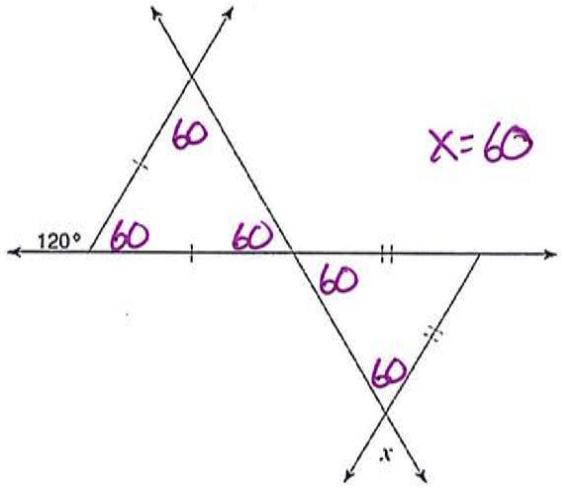
X=56

14.



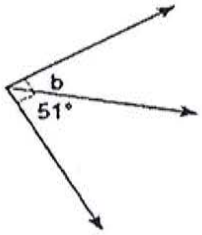
X=122

15.



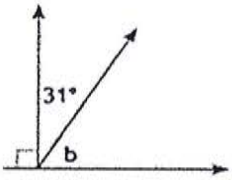
X=60

16. Find the measure in $\angle b$



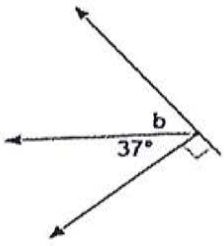
b = 39

17. Find the measure in $\angle b$



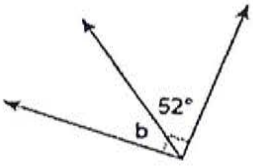
59

18. Find the measure in $\angle b$



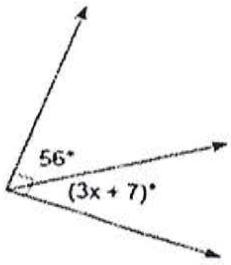
53

19. Find the measure in $\angle b$



38

20. Find the measure in $\angle x$

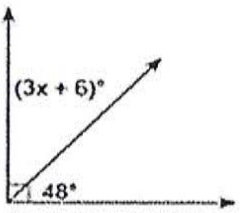


$56 + 3x + 7 = 90$

$\frac{3x}{3} = \frac{27}{3}$

$x = 9$

21. Find the measure in $\angle x$

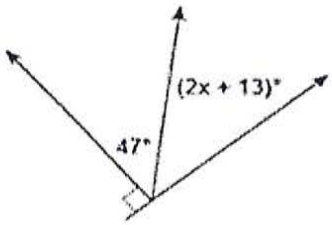


$48 + 3x + 6 = 90$

$3x = 36$

$x = 12$

22. Find the measure in $\angle x$

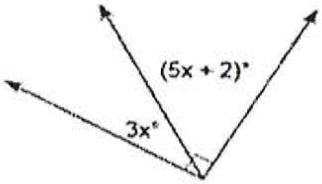


$47 + 2x + 13 = 90$

$2x = 30$

$x = 15$

23. Find the measure in $\angle x$

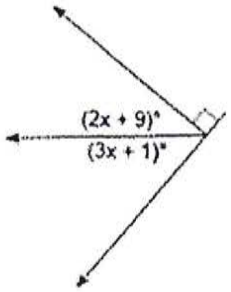


$3x + 5x + 2 = 90$

$8x = 88$

$x = 11$

24. Find the measure in $\angle x$

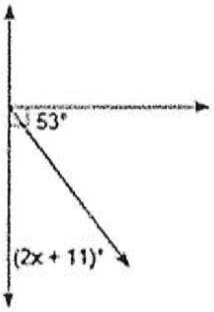


$2x + 9 + 3x + 1 = 90$

$5x = 80$

$x = 16$

25. Find the measure in $\angle x$

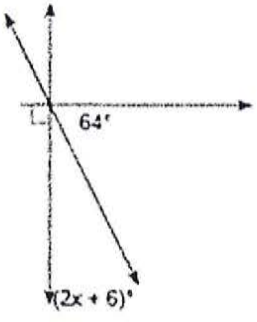


$53 + 2x + 11 = 90$

$2x = 26$

$x = 13$

26. Find the measure in $\angle x$

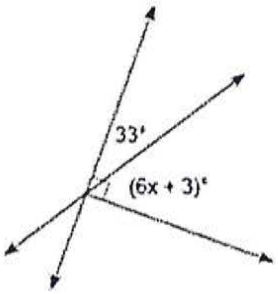


$64 + 2x + 6 = 90$

$2x = 20$

$x = 10$

27. Find the measure in $\angle x$

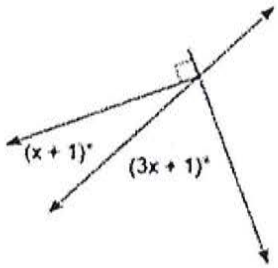


$33 + 6x + 3 = 90$

$6x = 54$

$x = 9$

28. Find the measure in $\angle x$



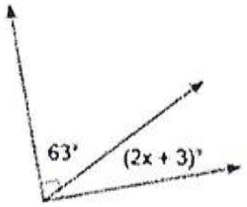
$x+1+3x+1=90$

$4x+2=90$

$4x=88$

$x=22$

29. Find the measure in $\angle x$

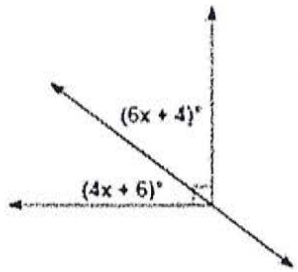


$63+2x+3=90$

$2x=24$

$x=12$

30. Find the measure in $\angle x$



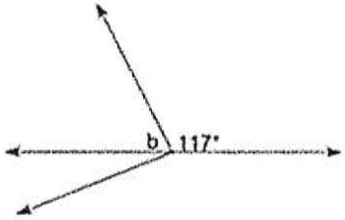
$4x+6+6x+4=90$

$10x+10=90$

$10x=80$

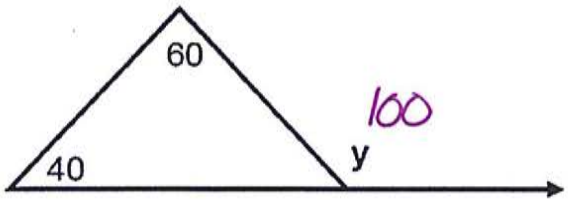
$x=8$

31. Find the measure in $\angle b$



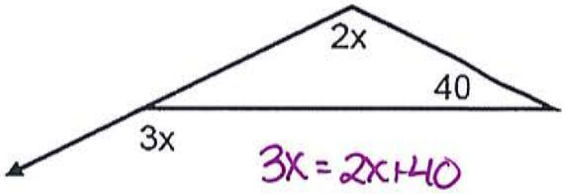
63

32. Solve for y



100

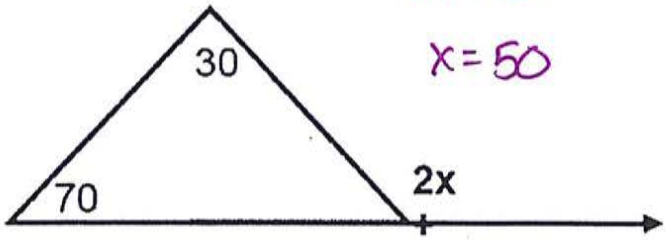
33. Solve for x



$3x=2x+40$

$x=40$

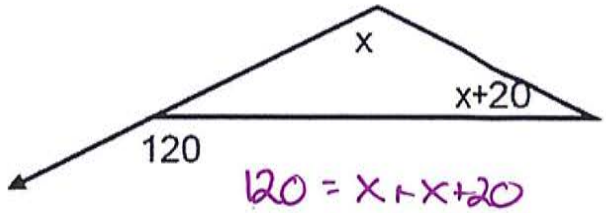
34. Solve for x



$2x=100$

$x=50$

35. Solve for x

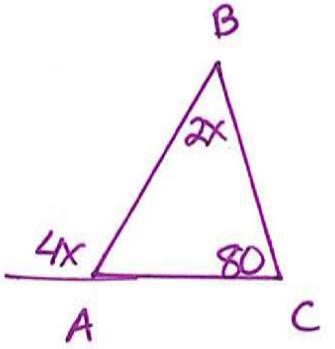


$120=x+x+20$

$100=2x$

$x=50$

36. In $\Delta ABC, m\angle C = 80, m\angle B = 2x$, & the measure of an exterior angle at A is $4x$. Draw a sketch & find x.

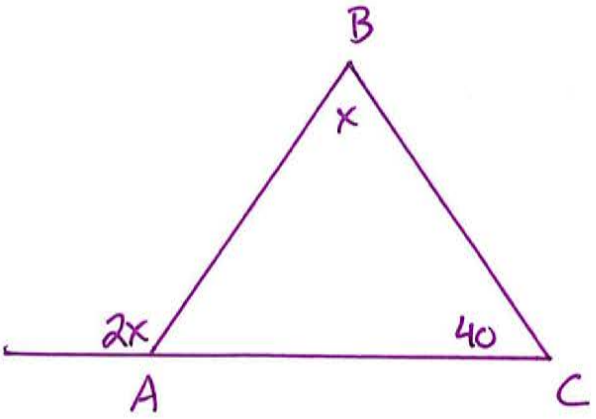


$4x = 2x + 80$

$2x = 80$

$x = 40$

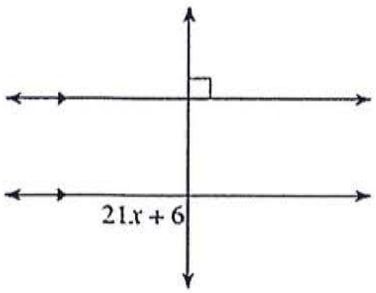
37. In $\Delta ABC, m\angle C = 40, m\angle B = x$, & the measure of an exterior angle at A is $2x$. Draw a sketch & find x.



$2x = x + 40$

$x = 40$

38. Solve for x

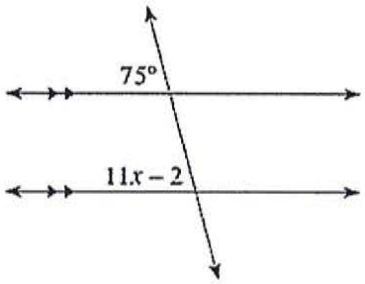


$21x + 6 = 90$

$21x = 84$

$x = 4$

39. Solve for x

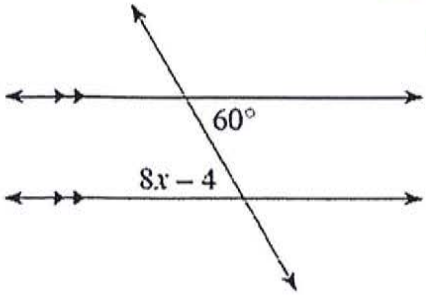


$11x - 2 = 75$

$11x = 77$

$x = 7$

40. Solve for x

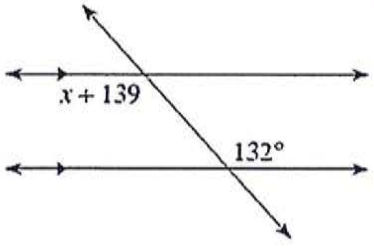


$60 = 8x - 4$

$64 = 8x$

$x = 8$

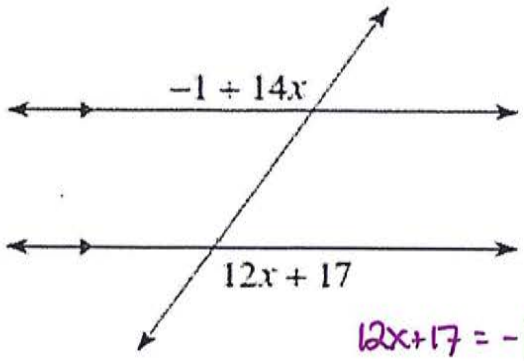
41. Solve for x



$x + 139 = 132$

$x = -7$

42. Solve for x



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

$18 = 2x$

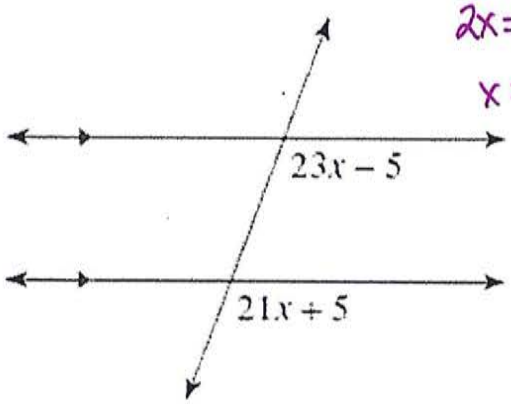
$x = 9$

43. Solve for x

$23x-5 = 21x+5$

$2x = 10$

$x = 5$



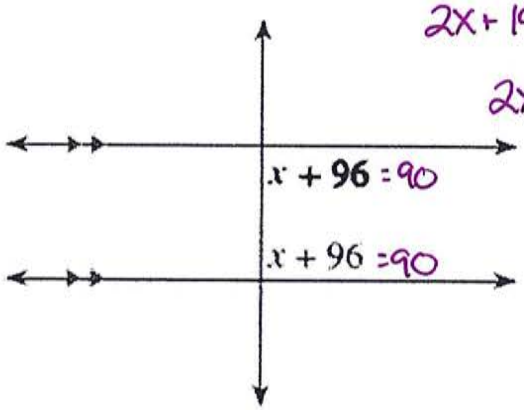
44. Find both angles

$x+96+x+96 = 180$

$2x+192 = 180$

$2x = -12$

$x = -6$



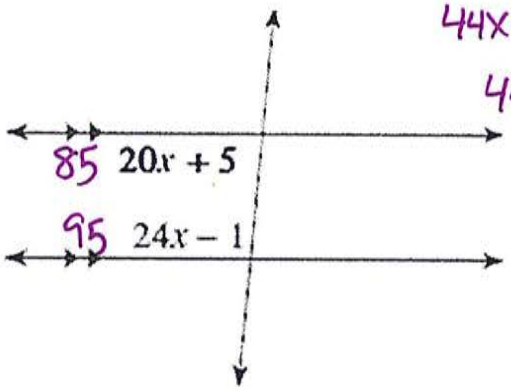
45. Find both angles

$20x+5+24x-1 = 180$

$44x+4 = 180$

$44x = 176$

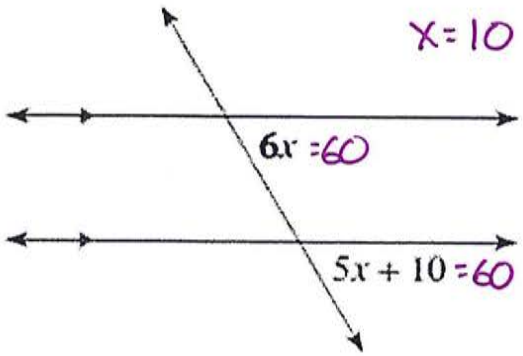
$x = 4$



46. Find both angles

$6x = 5x+10$

$x = 10$



47. Find both angles

$x+109+x+89 = 180$

$2x+198 = 180$

$2x = -18$

$x = -9$