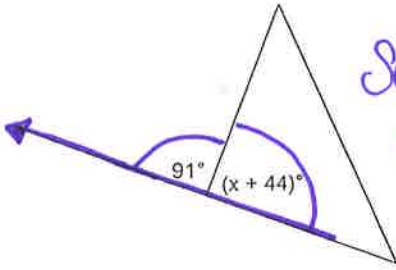


Pre-Algebra

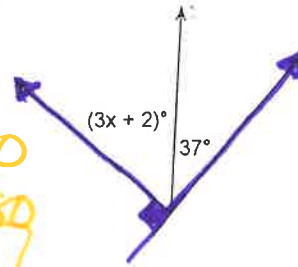
State the relationship between the angles. Find the value of x.

1)



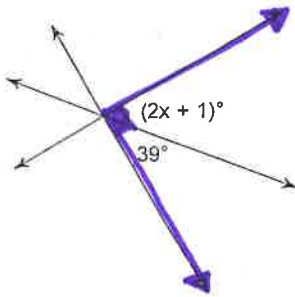
Supplementary
 $91 + x + 44 = 180$
 $x + 135 = 180$
 $x = 45$

2)



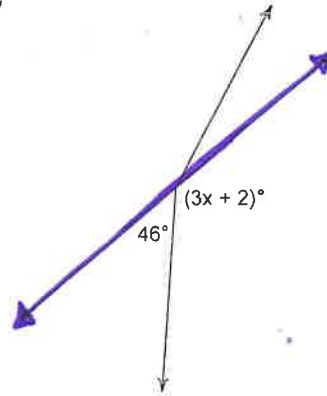
Complementary
 $3x + 2 + 37 = 90$
 $3x + 39 = 90$
 $3x = 51$
 $x = 17$

3)



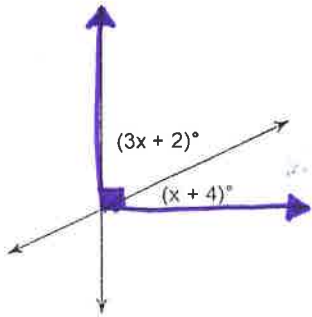
Complementary
 $2x + 1 + 39 = 90$
 $2x + 40 = 90$
 $2x = 50$
 $x = 25$

4)



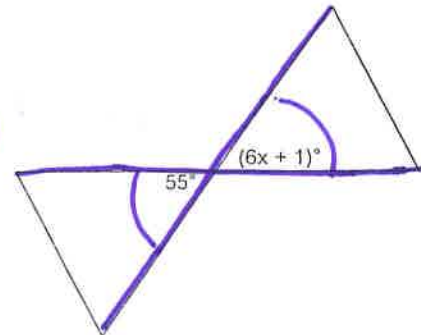
Supplementary
 $46 + 3x + 2 = 180$
 $3x + 48 = 180$
 $3x = 132$
 $x = 44$

5)



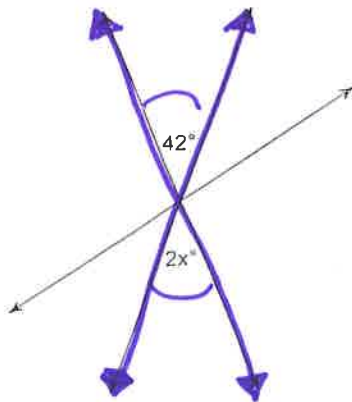
Complementary
 $3x + 2 + x + 4 = 90$
 $4x + 6 = 90$
 $4x = 84$
 $x = 21$

6)



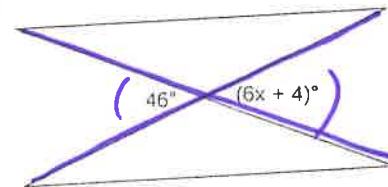
Vertical
 $55 = 6x + 1$
 $54 = 6x$
 $9 = x$

7)



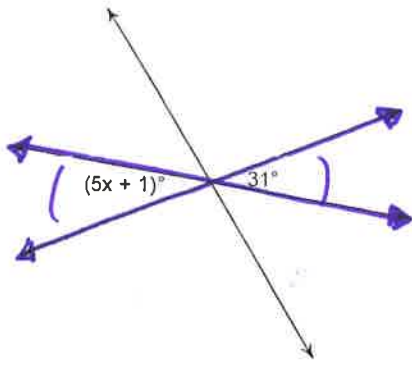
Vertical
 $2x = 42$
 $x = 21$

8)



Vertical
 $6x + 4 = 46$
 $6x = 42$
 $x = 7$

9)



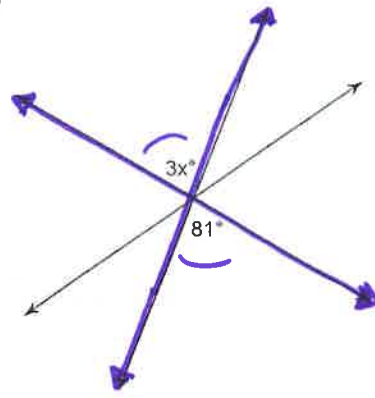
Vertical

$$5x + 1 = 31$$

$$5x = 30$$

$$x = 6$$

10)

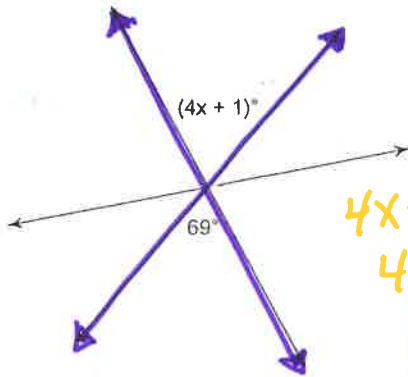


vertical

$$3x = 81$$

$$x = 27$$

11)



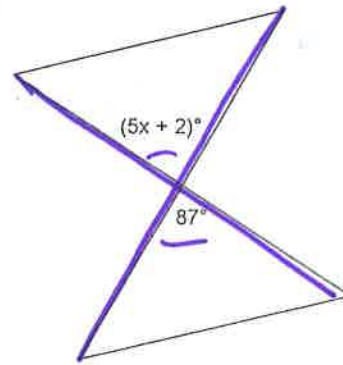
Vertical

$$4x + 1 = 69$$

$$4x = 68$$

$$x = 17$$

12)



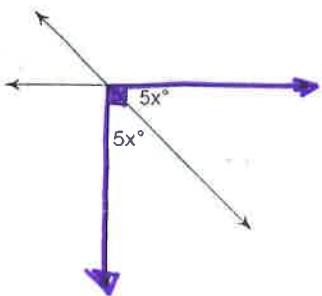
Vertical

$$5x + 2 = 87$$

$$5x = 85$$

$$x = 17$$

13)



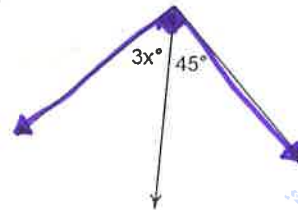
Complementary

$$5x + 5x = 90$$

$$10x = 90$$

$$x = 9$$

14)



Complementary

$$3x + 45 = 90$$

$$3x = 45$$

$$x = 15$$

Classify each angle as acute, obtuse, right, or straight.

15) 157°

obtuse

16) 180°

straight

17) 84°

acute

18) 57°

acute

19) 91°

obtuse