Are the indicated angles *adjacent*?
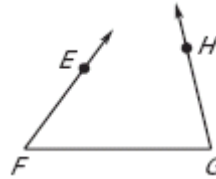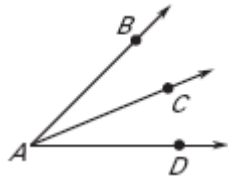
1._____ $\angle BAC$ and $\angle CAD$ 2._____ $\angle EFG$ and $\angle HGF$ 3._____ $\angle JNM$ and $\angle LNK$

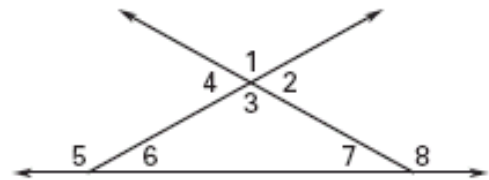**$\angle$ 1 and $\angle$ 2 are *complementary* angles. Given the measure of $\angle 1$, find $m\angle 2$.**

6. $m\angle 1=52°$, $m\angle 2 =$ _____   7. $m\angle 1=76°$, $m\angle 2 =$ _____   8. $m\angle 1=19°$, $m\angle 2 =$ _____

$\angle$ 1 and $\angle$ 2 are *supplementary* angles. Given the measure of $\angle 1$, find $m\angle 2$.

9. $m\angle 1=52°$, $m\angle 2 =$ _____   10. $m\angle 1=76°$, $m\angle 2 =$ _____   11. $m\angle 1=19°$, $m\angle 2 =$ _____
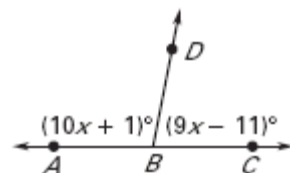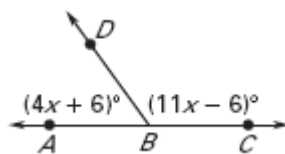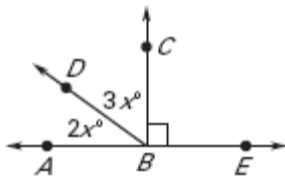
Using the diagram, tell whether the angles are *vertical angles*, a *linear pair*, or *neither*.

12._____ $\angle 1$ and $\angle 2$ 13._____ $\angle 1$ and $\angle 3$

14._____ $\angle 1$ and $\angle 4$ 15._____ $\angle 1$ and $\angle 5$

16._____ $\angle 1$ and $\angle 6$ 17._____ $\angle 1$ and $\angle 7$

18._____ $\angle 1$ and $\angle 8$ 19._____ $\angle 2$ and $\angle 4$

Use the diagrams to find the indicated measurements.

20. x = _____   21. x = _____   22. x = _____

   $m\angle ABD =$ _____ $m\angle ABD =$ _____ $m\angle ABD =$ _____

 $m\angle DBC =$ _____ $m\angle DBC =$ _____ $m\angle DBC =$ _____

Given: $m\angle A = (4x - 2)°$ and $m\angle B = (1lx + 17)°$

23. Find x if the angles are *complementary*.   24. Find x if the angles are *supplementary*.

**Stair Railing:** A stair railing is designed as shown in the figure.
Use the angles identified in the figure to **name** *two* **pairs** of the indicated type of angle pair.

25. Complementary angles ∠___ & ∠___   ∠___ & ∠___

26. Supplementary angles ∠___ & ∠___   ∠___ & ∠___

28. Vertical angles   ∠___ & ∠___   ∠___ & ∠___

29. Linear pair   ∠___ & ∠___   ∠___ & ∠___

30. Adjacent angles   ∠___ & ∠___   ∠___ & ∠___
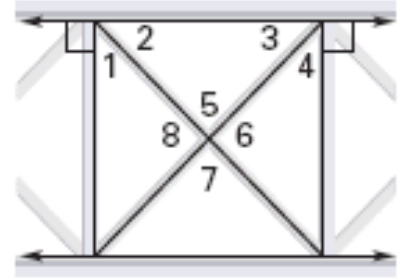
Using the diagram, tell whether the angles are *vertical angles,* a *linear pair*, or *neither.*

31._____ ∠1 and ∠2   32._____ ∠1 and ∠3

33._____ ∠2 and ∠4   34._____ ∠4 and ∠5

35._____ ∠6 and ∠8   36._____ ∠8 and ∠9

37._____ ∠11 and ∠10   38._____ ∠10 and ∠7
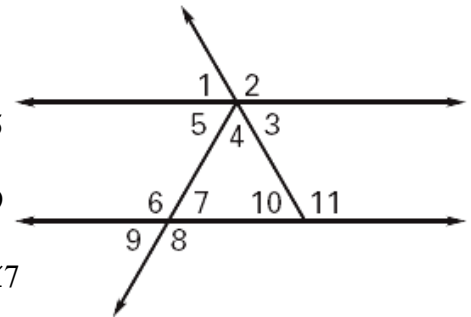
Draw a picture and write an equation to help you solve the following problems.

39._____ The measure of one angle is 7 times the measure of its *complement*.
Find the measure of each angle.

40._____ The measure of one angle is 38° less than the measure of its *supplement*.
Find the measure of each angle.