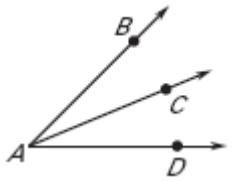
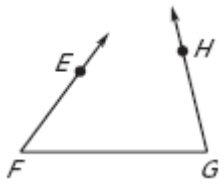
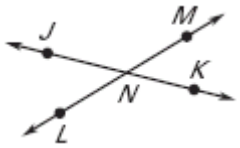
BECA / Dr. Huson / Geometry
September 28, 2018
Homework

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. $m\angle 1=19°$, $m\angle 2$ = _____

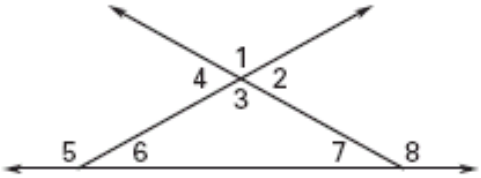
Using the diagram, tell whether the angles are *vertical angles,* a *linear pair*, or *neither.*

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

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

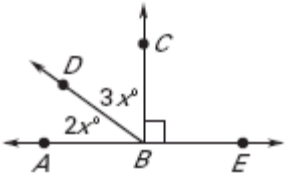
16._____ $\angle 1$ and $\angle 6$ 17._____ $\angle 1$ and $\angle 7$

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

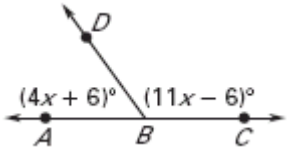


Use the diagrams to find the indicated measurements.

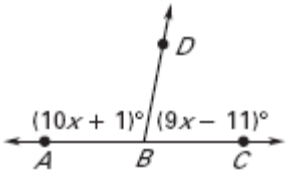
20. x = _____
$m\angle ABD$ = _____
$m\angle DBC$ = _____



21. x = _____
$m\angle ABD$ = _____
$m\angle DBC$ = _____



22. x = _____
$m\angle ABD$ = _____
$m\angle DBC$ = _____

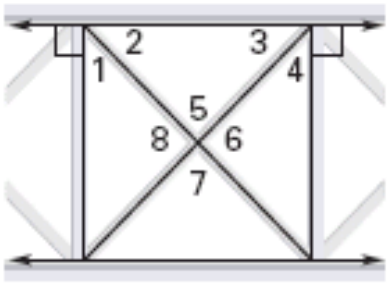


Given: $m\angle A = (4x - 2)°$ and $m\angle B = (11x + 17)°$

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 ∠ & ∠ ∠ & ∠

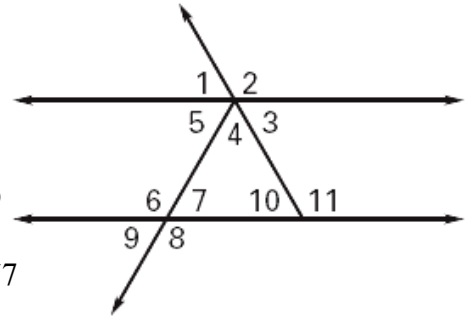
26. Supplementary angles ∠ & ∠ ∠ & ∠

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.