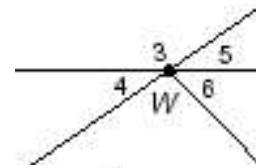## Mod 1 Extra Practice

Show all your work.

1. To identify the ray beginning at A and extending through B, you would use the notation:
   (A) AB (B) $\overline{AB}$ (C) $\overrightarrow{AB}$ (D) $\overleftrightarrow{AB}$
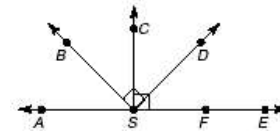
2. In the figure at right, $\angle 3$ and $\angle 5$ are:

   (A) congruent angles   (B) vertical angles
   (C) a linear pair   (D) complementary angles

3. In the figure at right, $\overleftrightarrow{SF}$ could also be called:
   (A) $\overrightarrow{ES}$ (B) $\overrightarrow{EA}$
   (C) $\overline{SE}$ (D) all of the above

In Problems 4-5, find the length of $\overline{AB}$.

4. $A(5,-1)$ $B(2,3)$ 5. $A(0,1)$ $B(-3,6)$

In Problems 6-7, find the midpoint of $\overline{AB}$.

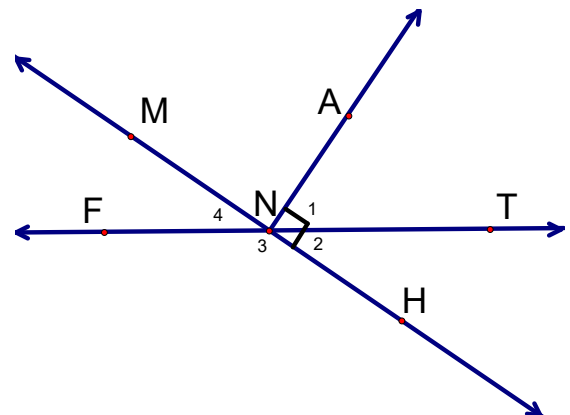6. $A(5,-1)$ $B(2,3)$ 7. $A(0,1)$ $B(-3,6)$

8. Assume M is the midpoint of $\overline{PQ}$. If $M(-1,8)$ and $P(2,6)$, find the coordinates of Q.

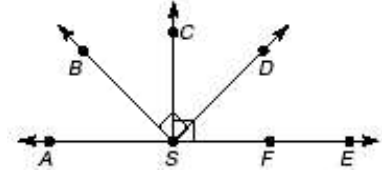For Problems 9-11, refer to the figure at right.
9. Name a pair of vertical angles.

10. Give a name for the relationship between $\angle 1$ and $\angle 2$.
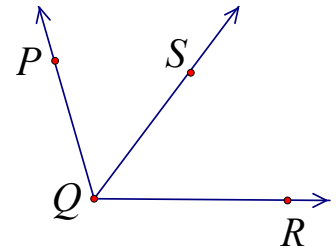
11. Give another name for $\angle 3$.

12. In the figure at right, name a point that is noncollinear with points A and F.
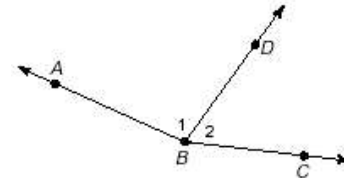
13. Assume point C is between points A and B. If $BC = 15$ and $AB = 91$, find the measure of segment $\overline{AC}$.

14. In the figure at right $\overrightarrow{QS}$ bisects $\angle PQR$. If $m\angle PQR = 52°$, find $m\angle PQS$ and $m\angle SQR$.

15. In the figure at right, $m\angle ABC = 75$, $m\angle 1 = 25 - x$, and $m\angle 2 = 5x + 20$. Find x and $m\angle 2$.
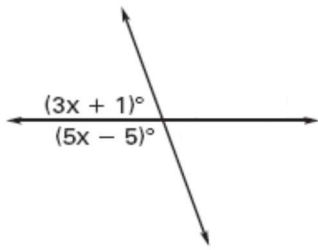
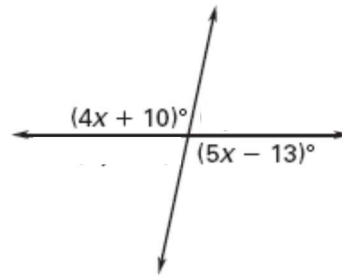16. F is the midpoint of $\overline{EG}$. If $EF = 2x + 23$ and $FG = 6x - 5$, find EG.

17. Y is between X and Z. If $XY = 12t - 11$, $YZ = -5t + 10$, and $XZ = 34$, find t.

For Problems 18-20, find x.

18.

(3x + 1)°
(5x − 5)°

19.

(4x + 10)°
(5x − 13)°

20.

(4x+1)°
(x-10)°