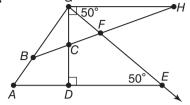
Practice 1-5

Angle Relationships

Name an angle or angle pair that satisfies each condition.

1. Name two obtuse vertical angles. Sample answer: ∠GFH, ∠CFE

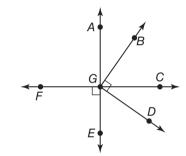
2. Name a linear pair with vertex B. \angle **GBC**, \angle **CBA**



- 3. Name an angle not adjacent to, but complementary to $\angle FGC$. $\angle FED$
- **4.** Name an angle adjacent and supplementary to $\angle DCB$. $\angle BCG$ or $\angle DCH$
- **5. ALGEBRA** Two angles are complementary. The measure of one angle is 21 more than twice the measure of the other angle. Find the measures of the angles. 23. 67
- **6. ALGEBRA** If a supplement of an angle has a measure 78 less than the measure of the angle, what are the measures of the angles? 129. 51

ALGEBRA For Exercises 7-8, use the figure at the right.

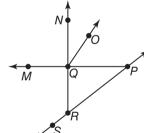
7. If $m \angle FGE = 5x + 10$, find the value of x so that $\overrightarrow{FC} + \overrightarrow{AE}$. 16



8. If $m \angle BGC = 16x - 4$ and $m \angle CGD = 2x + 13$, find the value of x so that $\angle BGD$ is a right angle. **4.5**

Determine whether each statement can be assumed from the figure. Explain.

9. $\angle NQO$ and $\angle OQP$ are complementary. No; $m \angle NQP$ is not known to be 90.



- 10. $\angle SRQ$ and $\angle QRP$ is a linear pair. Yes; they are adjacent angles whose noncommon sides are opposite rays.
- **11.** $\angle MQN$ and $\angle MQR$ are vertical angles. No; the angles are adjacent.
- **12. STREET MAPS** Darren sketched a map of the cross streets nearest to his home for his friend Miguel. Describe two different angle relationships between the streets.

Sample answer: Beacon ⊥ Main; Olive divides two of the angles formed by Beacon and Main into pairs of complementary angles.

