Lesson 1.4 Vertical, Supplementary, and Complementary Angles
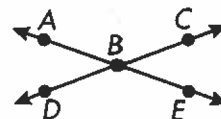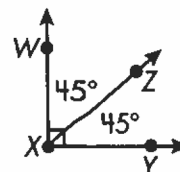

Vertical angles are opposite angles that have the same measure. ∠ABC and ∠DBE are vertical. Vertical angles are **congruent** since they have the same measure.

**Supplementary angles** are two angles whose measures have a sum of 180°. ∠ABD and ∠DBE are supplementary.

Complementary angles are two angles whose measures have a sum of 90°. ∠WXZ and ∠ZXY are complementary.

A **bisector** divides an angle into two angles of equal measure. XZ is the bisector of ∠WXY.
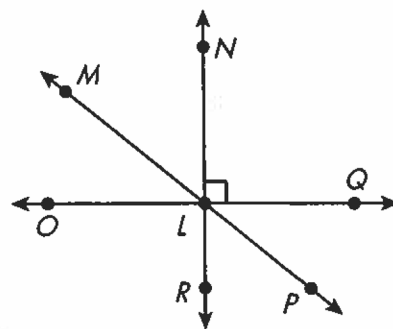

Use the figure to the right to answer questions 1–4.

1. Name an angle that is vertical to ∠ABC. _____

2. Name an angle that is vertical to ∠HDB. _____

3. Name an angle that is supplementary to ∠GDF. _____

4. Name the bisector of ∠ADG. _____
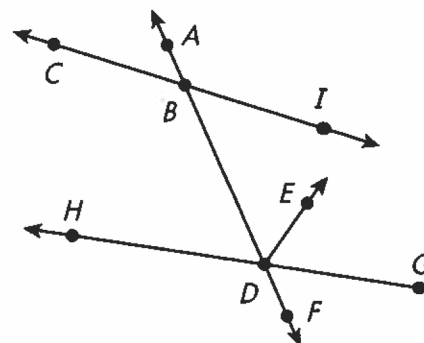
Use the figure to the right to answer questions 5 and 6.

5. Name an angle that is complementary to ∠MLN.

   _____

6. Name an angle that is complementary to ∠PLR.

   _____

Solve.

7. ∠ABC is supplementary to ∠CBD. The measure of ∠ABC is 63°. What is the measure of ∠CBD? _____

8. ∠MNO is complementary to ∠OND. The measure of ∠MNO is 82°. What is the measure of ∠OND? _____