

Name: \_\_\_\_\_

**In Exercises 1-3, use the top diagram.**

1. Name a pair of vertical angles.
2. Name a linear pair.
3. Are  $\angle 1$  and  $\angle 3$  adjacent angles? Explain.

**Solve each problem.**

4.  $\angle A$  and  $\angle B$  are complementary.  $m\angle A = 34^\circ$ . Find  $m\angle B$ .
5.  $\angle C$  and  $\angle D$  are supplementary.  $m\angle C = 101^\circ$ . Find  $m\angle D$ .
6. Two complementary angles measure  $(3x + 4)^\circ$  and  $(2x + 6)^\circ$ . Find both measures.
7. Two supplementary angles measure  $(7x - 2)^\circ$  and  $(3x + 12)^\circ$ . Find both measures.

**In Exercise 8, use the bottom diagram.**

8.  $m\angle 1 = (5x + 8)^\circ$  and  $m\angle 3 = (7x - 12)^\circ$ . Find  $m\angle 1$ .

**Solve each problem.**

9. Two angles form a linear pair. Their measures are  $(4x + 10)^\circ$  and  $(6x - 20)^\circ$ . Find both measures.
10.  $m\angle XYZ = 4x^\circ$  and  $m\angle VWU = (5x - 9)^\circ$ . Find the measure of each angle if the angles are: a) supplementary b) complementary

