Angle Problems

Name _____

Date _____ Period _____

Show a complete solution for each problem.

The sum of the degree measures of two complementary angles is 90.

1. If the measure of one of two complementary angles is 12 less than twice the measure of the other, find the measure of each angle.

a = measure of one angle

$2a - 12$ = measure of other angle

$a + (2a - 12) = 90$

$3a - 12 = 90$

$3a = 102$

$a = 34$ $\quad 2a - 12 = 56$

2. If the measure of one of two complementary angles is 22 more than three times the measure of the other, find the measure of each angle.

The sum of the degree measures of two supplementary angles is 180.

3. If the measure of one of two supplementary angles is five less than four times the measure of the other, find the measure of each angle.

4. If the measure of one of two supplementary angles is eight less than three times the measure of the other, find the measure of each angle.

The sum of the degree measures of the angles of a triangle is 180.

5. The second angle of a triangle measures three less than twice that of the first angle and the third angle measures eight more than twice that of the first. Find the measure of each angle.

6. Two of the angles of a triangle have the same measure and the third angle measures 15 more than each of the other two. Find the measure of each angle.

Consecutive angles of a parallelogram are supplementary.

7. One of two consecutive angles of a parallelogram measures six more than twice as much as the other. Find the measures of the angles.

8. One of two consecutive angles of a parallelogram measures 16 less than three times as much as the other. Find the measure of each angle.

© 1984 by Dale Seymour Publications

Angle Problems

Name _____

Date _____ Period _____

Show a complete solution for each problem.

The sum of the degree measures of two complementary angles is 90.

1. If the measure of one of two complementary angles is three more than twice the measure of the other, find the measure of each angle.

a = measure of one angle

$2a + 3$ = measure of other angle

$a + (2a + 3) = 90$

$3a + 3 = 90$

$3a = 87$

$a = 29$ $\quad 2a+3 = 61$

2. If the measure of one of two complementary angles is 21 less than twice the measure of the other, find the measure of each angle.

The sum of the degree measures of two supplementary angles is 180.

3. If the measure of one of two supplementary angles is twelve less than three times the measure of the other, find the measure of each angle.

4. If the measure of one of two supplementary angles is six less than five times the measure of the other, find the measure of each angle.

The sum of the degree measures of the angles of a triangle is 180.

5. The second angle of a triangle measures seven more than twice that of the first angle and the third angle measures five more than three times that of the first. Find the measure of each angle.

6. Two of the angles of a triangle have the same measure and the third angle measures twice that of each of the other two. Find the measure of each angle.

Consecutive angles of a parallelogram are supplementary.

7. One of two consecutive angles of a parallelogram measures eight less than three times as much as the other. Find the measures of the angles.

8. One of two consecutive angles of a parallelogram measures nine less than twice as much as the other. Find the measure of each angle.

© 1984 by Dale Seymour Publications