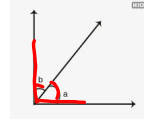


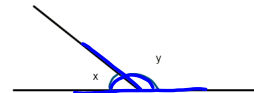
Complementary and Supplementary Angles

Vocabulary

Complementary Angles- Two angles whose measure have a sum of 90



Supplementary Angles- Two angles whose measures have a sum of 180



Identify each angle represents Supplementary or Complementary and then find the Complement or Supplement of each angle

Supp. $180 - 87 = 93$

$90 - 32 = 58$

$90 - 55 = 35$

$180 - 114 = 66$

Let's Use Algebra with Angles!

1) Find x

$x + 4x = 90$
 $5x = 90$
 $x = 18$

2) Find both angles

$5x + 10 + 2x - 5 = 90$
 $7x + 5 = 80$
 $7x = 75$
 $x = 10.7$

3) Find both angles

$23 + 4y - 2 = 90$
 $4y + 21 = 90$
 $4y = 69$
 $y = 17.25$

4) Find y

$x = 25$
 $18y = 450$
 $y = 25$

Try These!

A) $3x + 2x = 90$
 $5x = 90$
 $x = 18$
 $2x + 20 = 180$

B) $2x = 100$
 $x = 50$
 $8x + 4 = 180$
 $8x = 176$
 $x = 22$

C) $x = 10$

How About This One?

$5(19) + 4 = 99$
 $3(19) + 7 = 64$
 $5x + 4 + x - 2 + 3x + 7 = 180$
 $9x + 9 = 180$
 $9x = 171$
 $x = 19$

Word Problems

Two angles are complementary. The larger angle is 5 times greater than the smaller angle. Find the measure of the 2 angles.

HINT **ANSWER**

Two angles are supplementary. The larger angle is 2 more than 4 times the smaller angle. Find the measure of the angles.

Word Problems

Two angles are supplementary. The larger angle is 8 times greater than the smaller angle. Find the measure of the 2 angles.

HINT **ANSWER**

The measure of the supplement of an angle is 10° more than four times the original angle. Find the measure of the two angles.

HINT **ANSWER**

$5 = 5$
 $x = 34$

