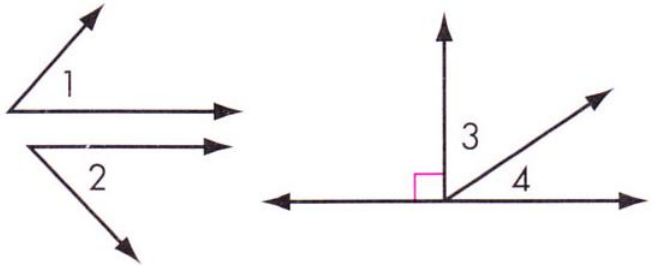
12.2

COMPLEMENTARY AND SUPPLEMENTARY ANGLES

1) Define complementary angles

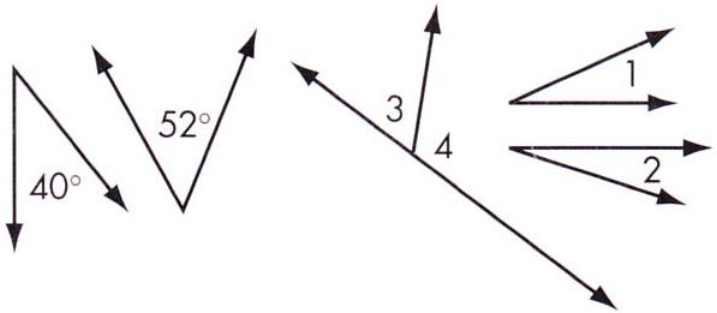
Pairs of complementary angles



$m\angle 1 + m\angle 2 = 90^\circ$

$m\angle 3 + m\angle 4 = 90^\circ$

Not pairs of complementary angles

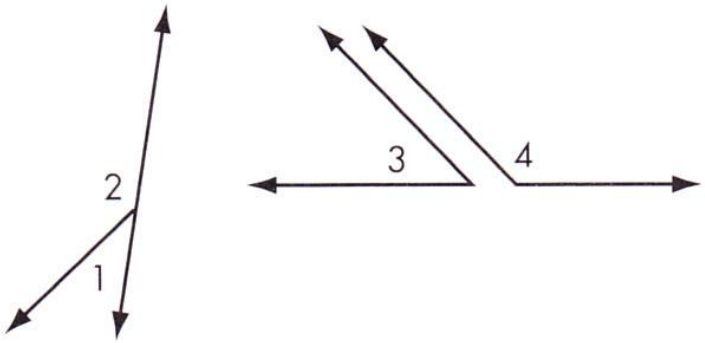


$m\angle 1 + m\angle 2 < 90^\circ$

Note: Sometimes it's convenient to name angles in a diagram with a number.

2) Define supplementary angles

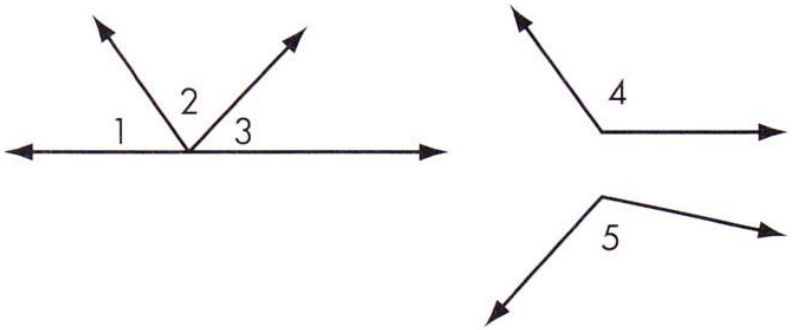
Pairs of supplementary angles



$m\angle 1 + m\angle 2 = 180^\circ$

$m\angle 3 + m\angle 4 = 180^\circ$

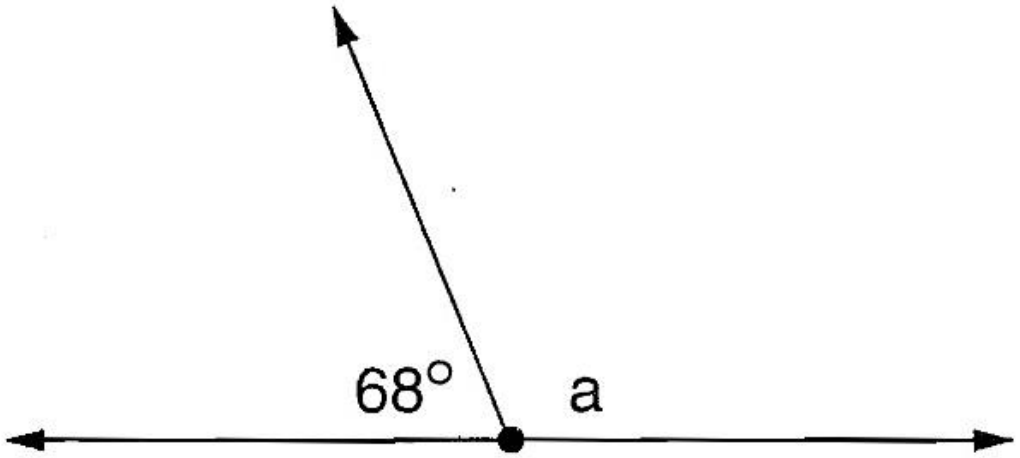
Not pairs of supplementary angles



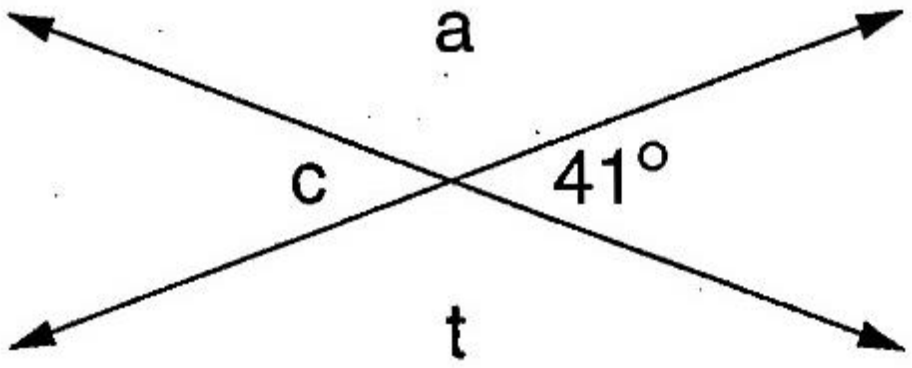
$m\angle 1 + m\angle 2 < 180^\circ$

$m\angle 4 + m\angle 5 > 180^\circ$

Find the missing angle.

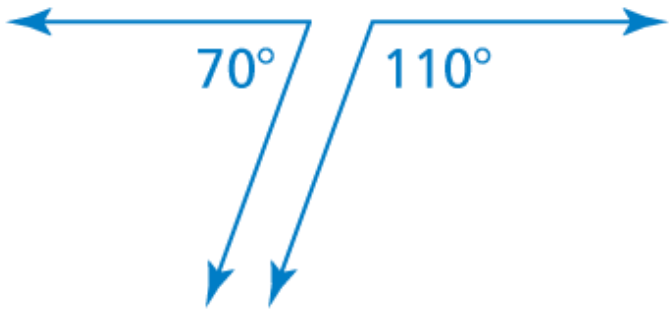


Find the missing angles.

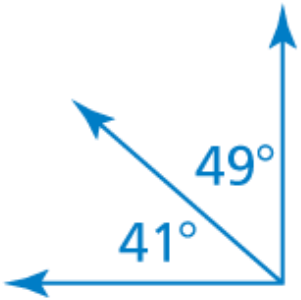


Tell whether the angles are *complementary*, *supplementary*, or *neither*.

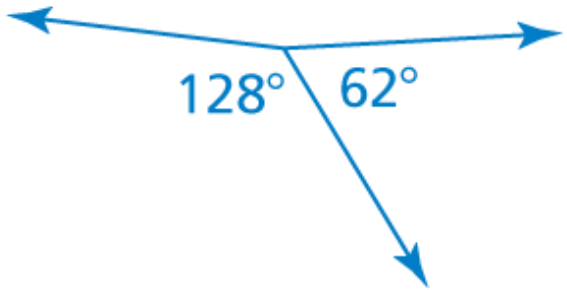
a.



b.

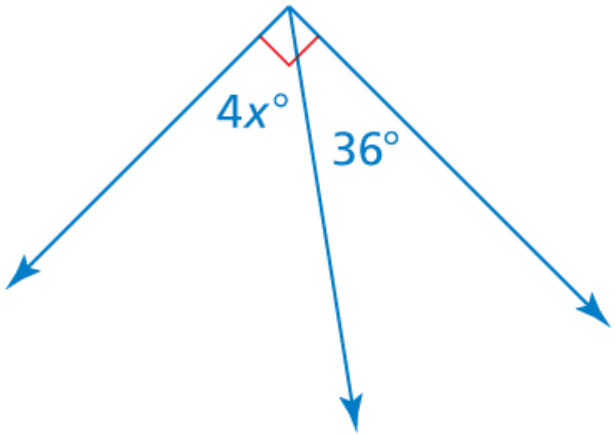


c.

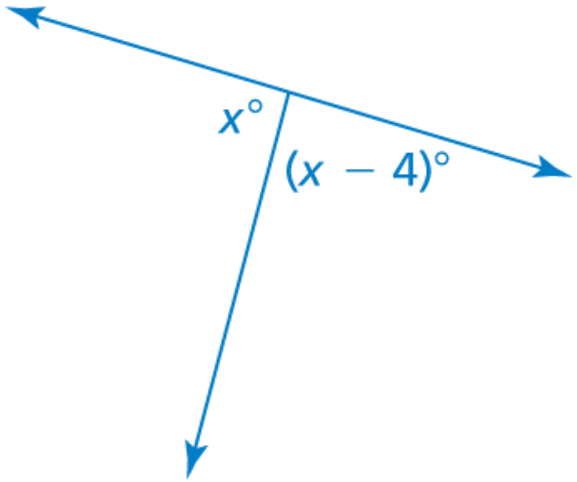


Tell whether the angles are *complementary* or *supplementary*. Then find the value of x.

a.



b.



Do you understand?

Use the given information to solve each problem.

Angle 1 and 2 are *supplementary*.

$$m\text{Đ}1 = 50° \text{ and } m\text{Đ}2 = 3x°$$

a) Write an equation and find the value of x.

b) Use the value of x to find the measure of angle 2.

Do you understand?

Use the given information to solve each problem.

Angle 1 and 2 are *complementary*.

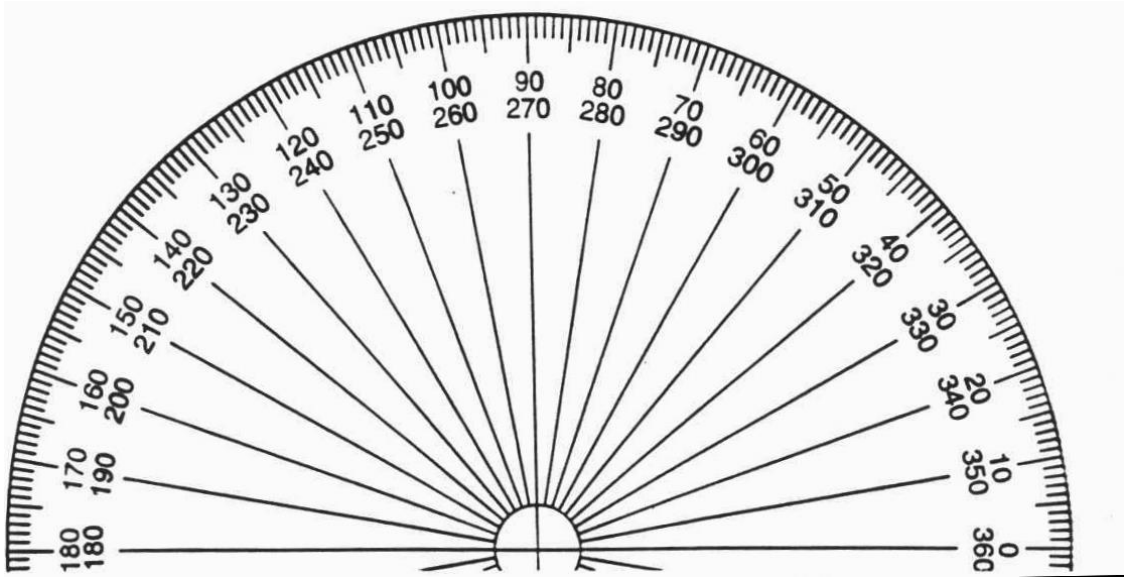
$$m\text{Đ}1 = x° \text{ and } m\text{Đ}2 = 2x°$$

a) Write an equation and find the value of x.

b) Use the value of x to find the measure of angle 2.

Measuring Angles

Angles are usually measured with the use of a PROTRACTOR



USING A PROTRACTOR TO DRAW AND MEASURE ANGLES