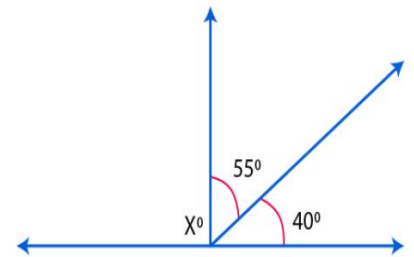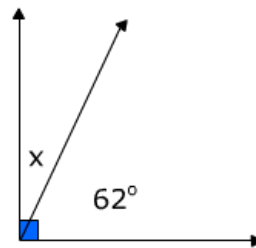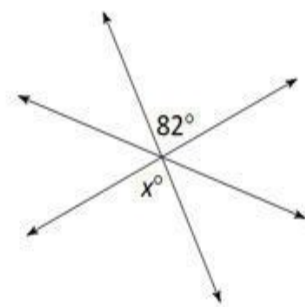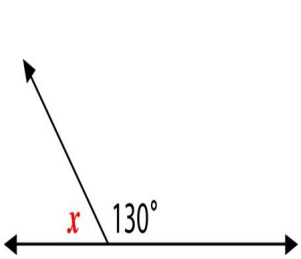| Right Angle | Straight Angle | Obtuse Angle | Acute Angle |

| Complementary | Supplementary | Vertical | Adjacent |

Finding the Missing Angle

x 130°

82° $x°$

x 62°

55° X° 40°

Finding the Missing Angle - Using Algebra

$(x+64)°$

$3x°$

$(x+3)°$

$(x-1)°$

$(x+1)°$

Find x

$7x-6$

$3x-14$

C.

B

$y°$

$68°$

$(4x-2)°$

$30°$

A

D

----
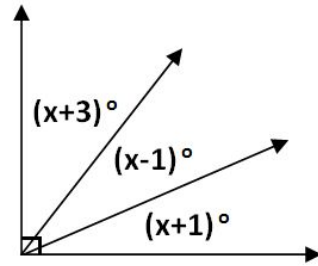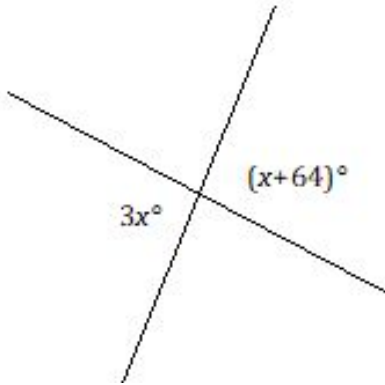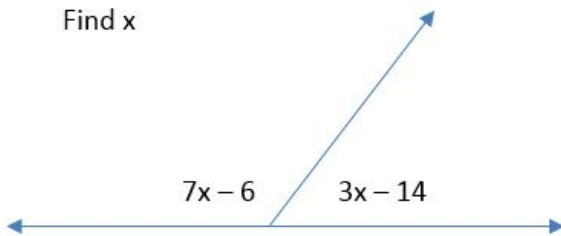
1. The measures of two **supplementary** angles are in the ratio of $2:3$. Find the measurements of the two angles.

2. In a pair of **complementary** angles, the measurement of the larger angle is three times that of the smaller angle. Find the measurements of the two angles.
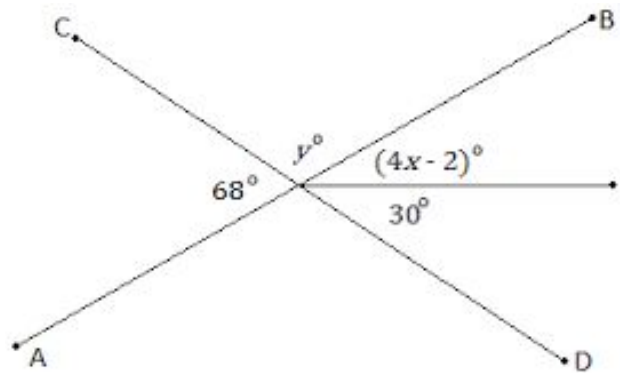
3. The measure of a **supplement** of an angle is $6°$ more than twice the measure of the angle. Find the measurement of the two angles.

4. The measurement of the **complement** of an angle exceeds the measure of the angle by 75%. Find the measurement of the angle and its complement.

5. Three adjacent angles are **at a point**. The second angle is $30°$ more than the first, and the third angle is $40°$ more than the second angle. Find the measurements of all three angles.

6. Three adjacent angles are **on a line**. The measurements of the three angles are four consecutive whole numbers. Determine the measurements of all three angles.

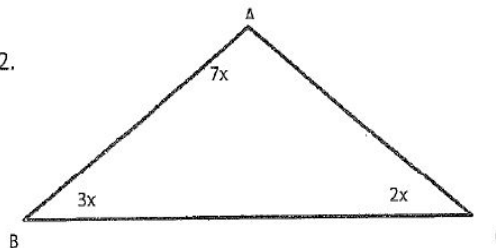---

Triangle Sum Theorem

All the angles in a triangle add up to 180°.

Find the missing angles.

1.

$120°$

$34°$

2.

$7x$

$3x$

$2x$
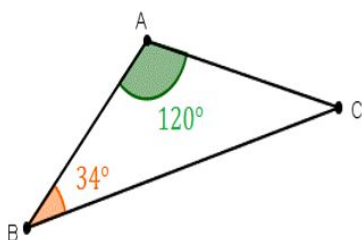
<A = _____

<B = _____

<C = _____

- -

Triangle Inequality Theorem

The sum of any two sides of a triangle must be greater than the 3rd side.

1. 3, 9, 7   2. 2, 8, 4

Triangle Congruence Theorems

Theorem	Proves 2 Triangles are Congruent	Picture	Word Description
SAS	Yes or No		
SSS	Yes or No		
AAS of SAA	Yes or No		

Theorem	Proves 2 Triangles are Congruent	Picture	Word Description
ASA	Yes or No		
HL	Yes or No		
SSA or _____	Yes or No		