Use the figure at the right to answer the questions:
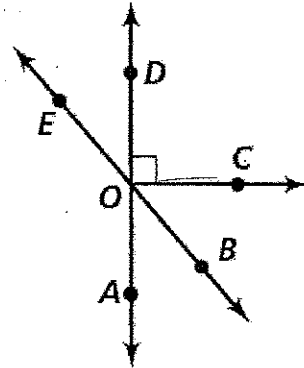
1. Name an angle complementary to angle BOC

   $\angle BOA$

2. Name an angle supplementary to angle BOC

   $\angle COE$

3. Name an angle adjacent and congruent to angle AOC

   $\angle COD$

4. Name an acute angle

   $\angle EOD, \angle COB, \angle BOA$

5. Name a pair of vertical angles

   $\angle AOB \; r \angle EOD$

6. **Use the diagram at the right to find x and the measure of the angles**

$\angle COD = 9x + 4, \angle BOC = 4x - 1, \angle BOD = 14x - 6$

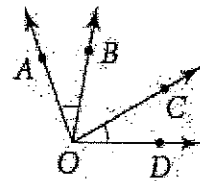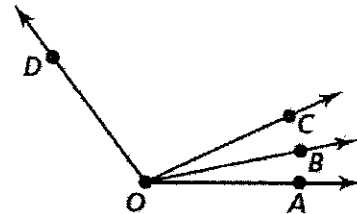$X = 9$ $\angle COD = 85$

$\angle BOC = 35$

$\angle BOD = 120$

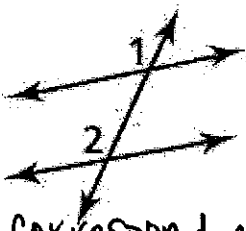$m\angle AOB = 4x - 2, m\angle BOC = 5x + 10,$
$m\angle COD = 2x + 14$
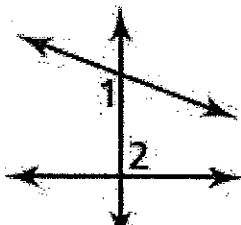
$X = 8$ $\angle AOB = 30$

$\angle BOC = 50$

$\angle COD = 30$

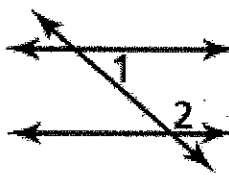**Classify each pair of angles**
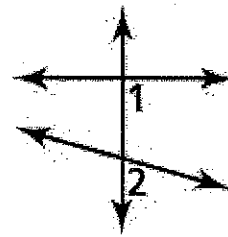
Corresponding   AIA   SSI   Corresponding
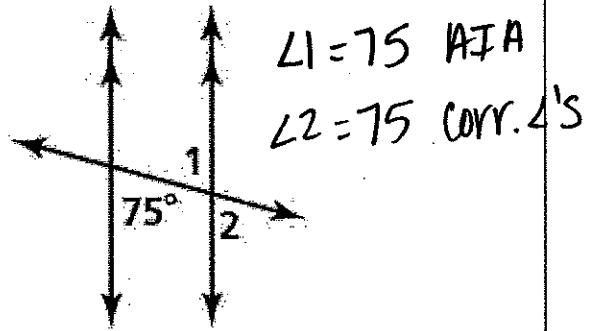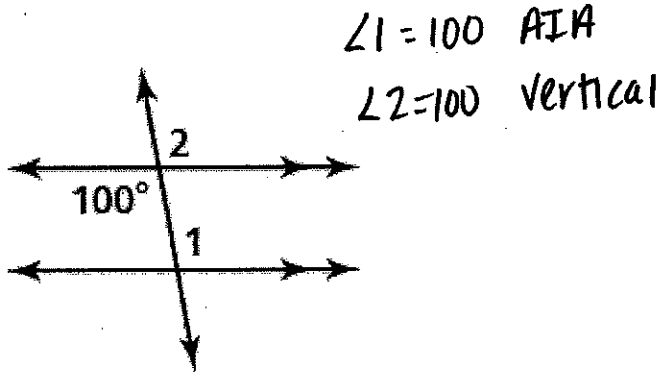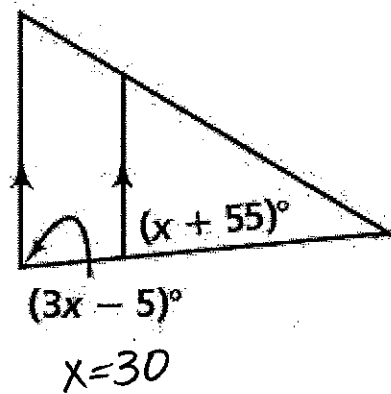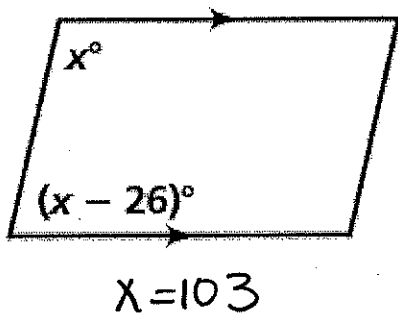
Find the measures of the numbered angles and justify your answers

∠1 = 100 AIA
∠2 = 100 Vertical

$100°$

2

1

∠1 = 75 AIA
∠2 = 75 Corr. ∠'s

$75°$

1

2

Find the value of x and the measure of the angle.

$x°$

$(x - 26)°$

X = 103

$(x + 55)°$

$(3x - 5)°$

X = 30

Which lines or segments are parallel? Justify your answer with a theorem or postulate

ℓ   m   n

$65°$

$115°$ $110°$ o

$70°$

ℓ ‖ m by
Converse of SSI
∠'s

A   R $\overline{AR} \parallel \overline{TH}$ by
$30°$ Converse of
$70°$ Corr. ∠'s
T   H
$30°$

U
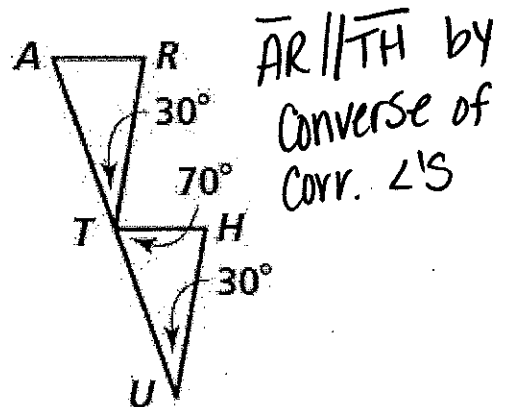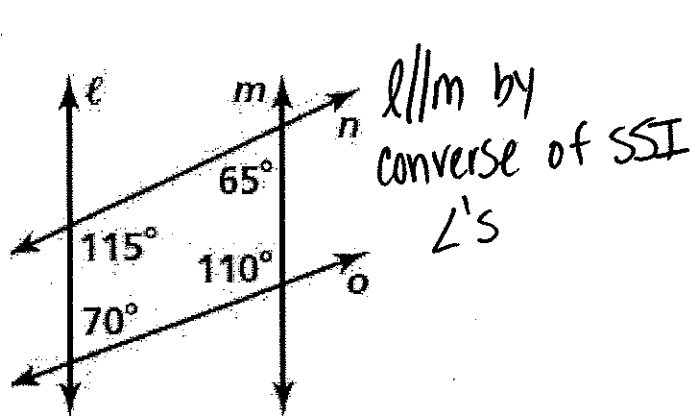
Find the value of x for which $a \parallel t$.

a t

$93°$

$(x + 44)°$

$X = 43$

$(3x)°$ a

t

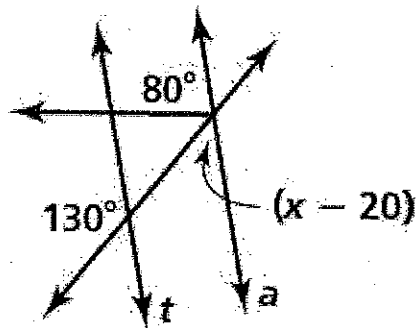$(2x - 10)°$

$X = 38$

$(x - 30)°$

a

$70°$

t

$X = 100$

$80°$

$130°$ $(x - 20)$

t a
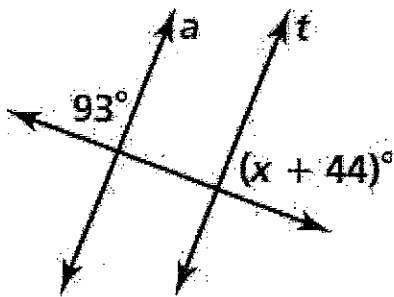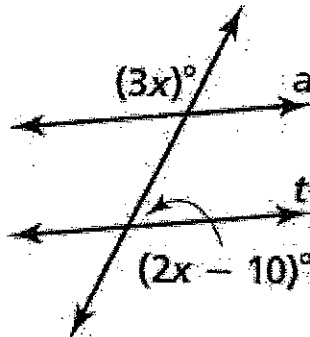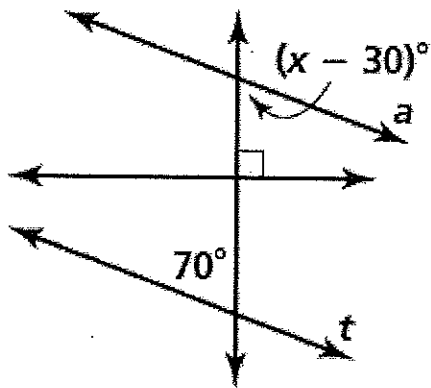
$X = 70$

Angle 1 and Angle 2 are complementary. Angle 1 = 2x+7 and Angle 2 = 4x-19. Find the measure of each angle.	Angle 3 and Angle 4 are supplementary. Angle 3 = 5x+22 and Angle 4 = 7x+2. Find the measure of each angle.
$\angle 1 = 41$ $\angle 2 = 49$	$\angle 3 = 87$ $\angle 4 = 93$

Find each of the following:

-x $=8$

-Measure of angle LAT $=155$

-Measure of angle TAO $=25$

-Measure of angle PAO $=155$