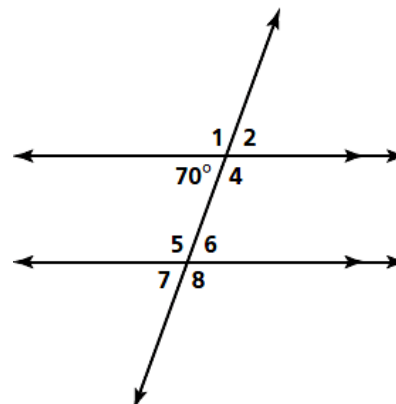Name:_____Per:_____

Parallel Lines Cut by a Transversal Review
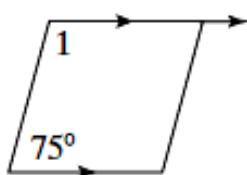
1. Find the measure of each angle in the diagram at the right.

$m\angle 1$ $m\angle 2$

$m\angle 4$ $m\angle 5$

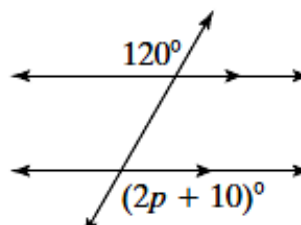$m\angle 6$ $m\angle 7$

$m\angle 8$

2. Find $m\angle 1$.

A 75°

B 85°

C 95°

D 105°

1

75°

3. In the figure below, lines l and m are parallel. Find the value of p.
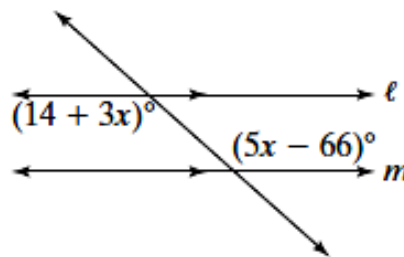
A 50

B 55

C 60

D 65

120°

$(2p + 10)°$

4.

Find the value of x for which $\ell \| m$.

The labeled angles are [_____].

If $\ell \| m$, the alternate interior angles are [_____], and their measures are [_____]. Write and solve the equation [____] $- 66 =$ [____] $+ 3x$.

[____] $- 66 =$ [____] $+ 3x$

[____] $=$ [____] $+ 3x$ Add [____] to each side.

[____] $=$ [____]   Subtract [____] from each side.

$x =$ [____]   Divide each side by [__].

$(14 + 3x)°$

$(5x - 66)°$

ℓ

m

5. Find the value of x for which $a \| b$.

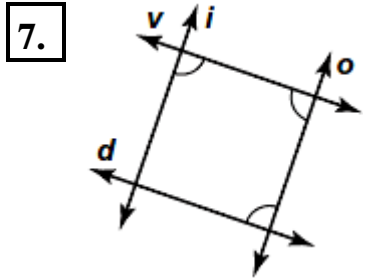Explain how you can check your answer.

a

$(7x - 8)°$

b 62°
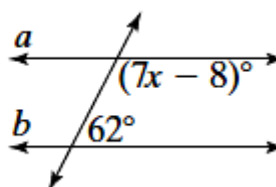
Which lines or segments are parallel? Justify your answer with a theorem or postulate.
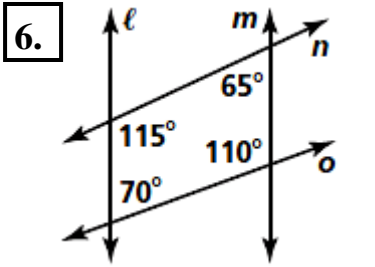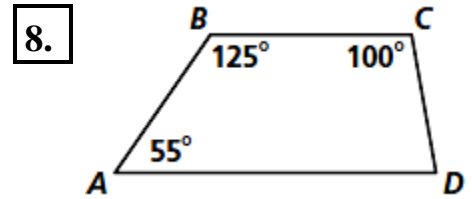
6.

Parallel lines:_____

Theorem/Postulate:_____

7.
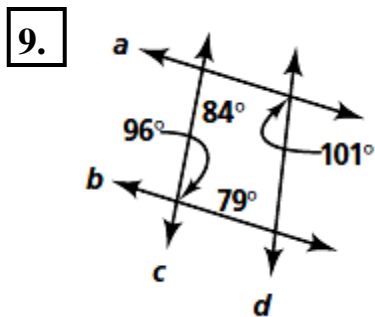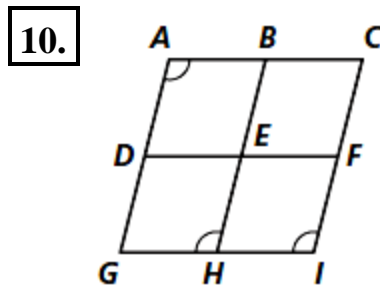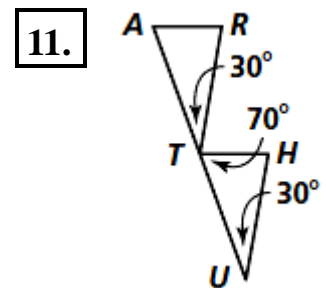

Parallel lines:_____

Theorem/Postulate:_____

8.

Parallel lines:_____

Theorem/Postulate:_____

9.

Parallel lines:_____

Theorem/Postulate:_____

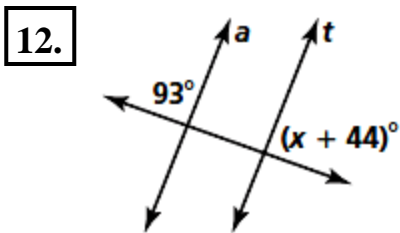**10.**

Parallel lines:_____

Theorem/Postulate:_____

11.

Parallel lines:_____

Theorem/Postulate:_____

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

12.

Name the Angle pair

_____

Congruent or Supplementary

Solve:

13.
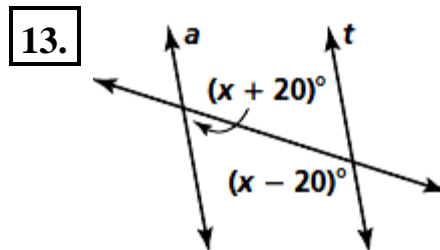

Name the Angle pair

_____
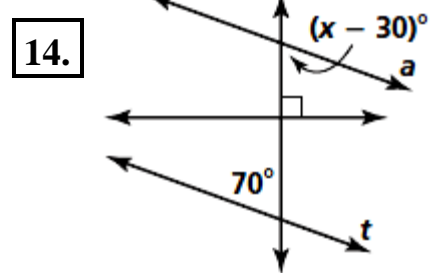
Congruent or Supplementary

Solve:

14.

Name the Angle pair

_____

Congruent or Supplementary

Solve: