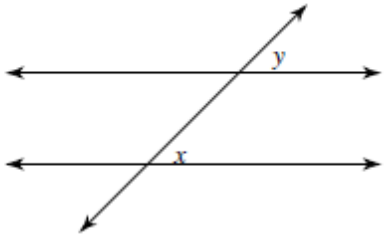
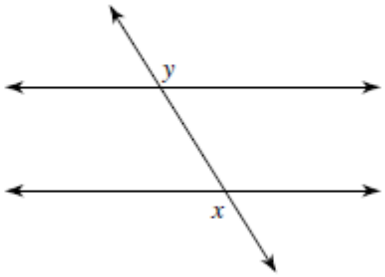
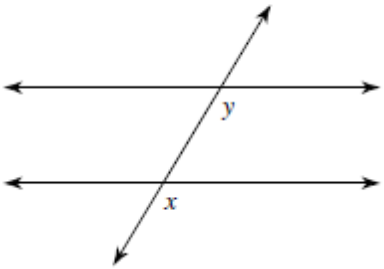
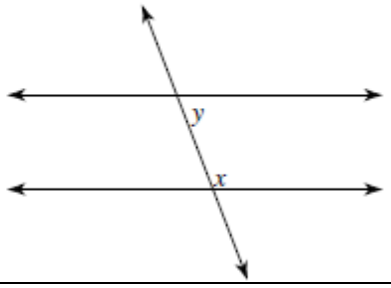
Parallel Lines and Transversals Practice Name:_____

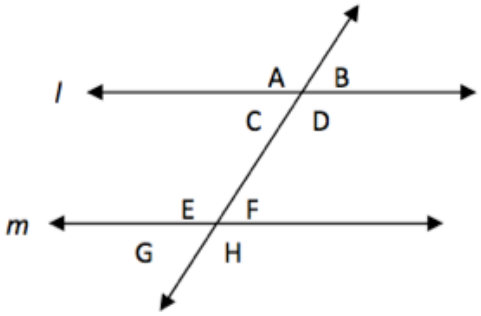
1)	Name:
	Congruent or Supplementary

2)	Name:
	Congruent or Supplementary

3)	Name:
	Congruent or Supplementary

4)	Name:
	Congruent or Supplementary

Find the value of x in each question given that lines *l* and *m* are parallel. Check your answers by finding the measure of each angle.



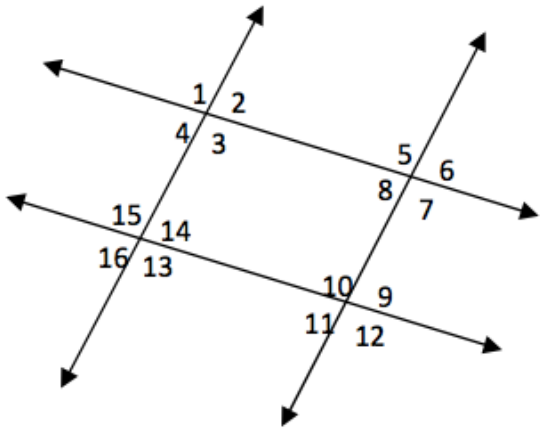
5. $m\angle C = 3x - 10;$
   $m\angle F = x + 70$

6. $m\angle D = x + 27;$
   $m\angle F = 2x - 39$

7. $m\angle B = 2(x + 40);$
   $m\angle G = 5x + 44$

x = m<C = m<F =	x = m<D = m<F =	x = m<B = m<G =

Given that $m\angle 4 = 3x + 10$ and $m\angle 12 = 2x + 30$, find the value of x, $m\angle 4, m\angle 10$.

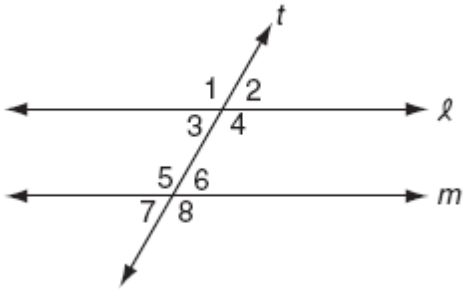


x =

m<4 =

m<10 =

In the accompanying diagram, line ℓ is parallel to line *m*, and line *t* is a transversal.



Which must be a true statement?

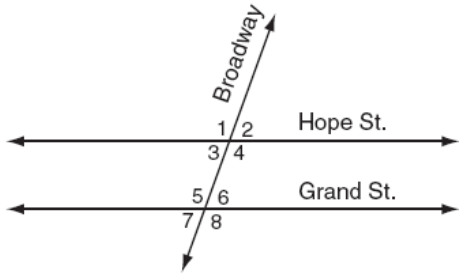
(1) $m\angle 1 + m\angle 4 = 180$

(2) $m\angle 1 + m\angle 8 = 180$

(3) $m\angle 3 + m\angle 6 = 180$

(4) $m\angle 2 + m\angle 5 = 180$

The accompanying diagram shows two parallel roads, Hope Street and Grand Street, crossed by a transversal road, Broadway.



If $m\angle 1 = 110$, what is the measure of $m\angle 7$?

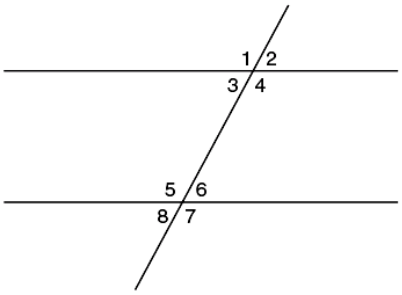
(1) 40°

(2) 70°

(3) 110°

(4) 180°

In the accompanying figure, what is one pair of alternate interior angles?



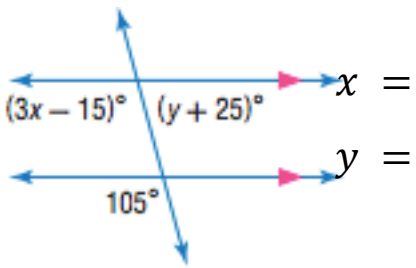
(1) ∠1 and ∠2

(2) ∠4 and ∠5

(3) ∠4 and ∠6

(4) ∠6 and ∠8

Find the value of x and y.



x =

y =