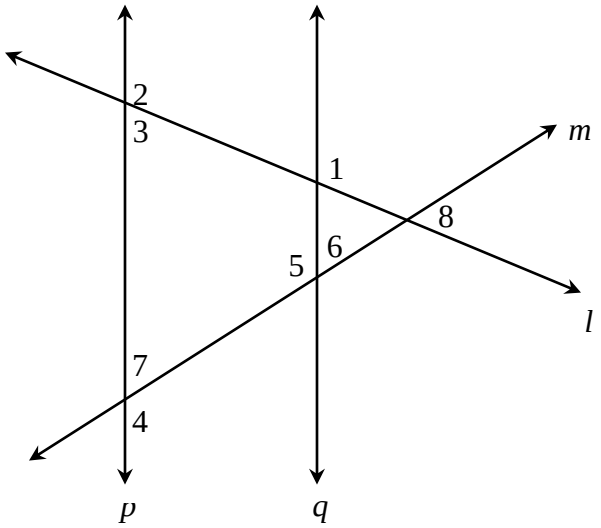
Name_____Per._____Date_____
Geometry Ch. 3 Practice Test

***** NOTE: No diagrams are drawn to scale! *****

For problems 1-6, $p \parallel q$ with $m\angle 2 = 97°$ and $m\angle 7 = 68°$.
Find the measure of each numbered ∠.



1. $m\angle 2$ = _____

2. $m\angle 3$ = _____

3. $m\angle 4$ = _____

4. $m\angle 5$ = _____

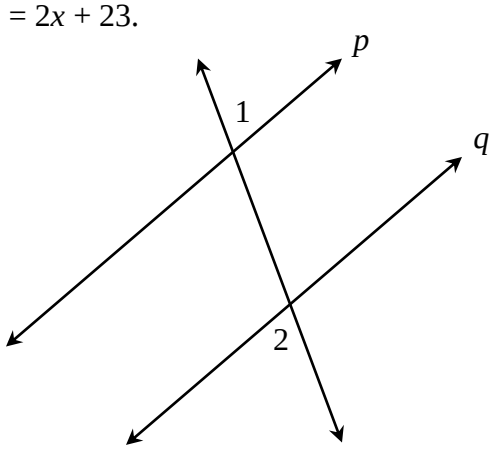
5. $m\angle 6$ = _____

6. $m\angle 8$ = _____

7. Given $p \parallel q$ and $m\angle 1 = 4x - 25$ and $m\angle 2 = 2x + 23$.
Find x and $m\angle 2$.

$x =$ _____

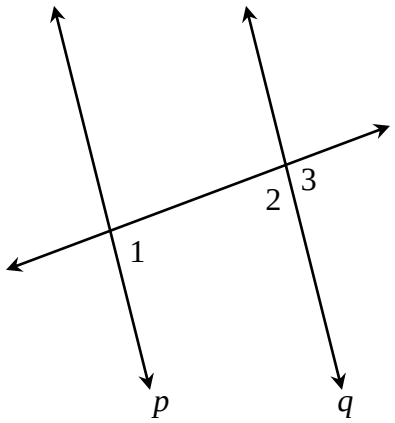
$m\angle 2 =$ _____



8. Given $p \parallel q$ and $m\angle 1 = 4x + 15$, $m\angle 2 = 2x + 33$ and $m\angle 3 = 2y - 13$.
Find x and y.

$x =$ _____

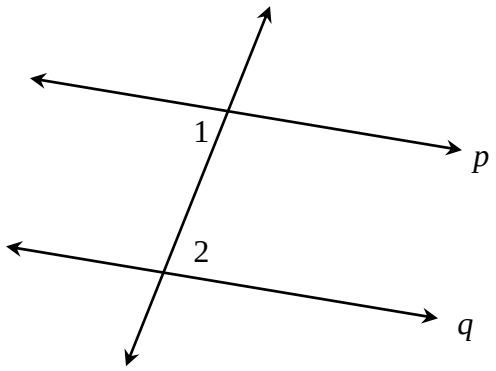
$y =$ _____



9. Given $p \parallel q$ and $m\angle 1 = 7x - 11$ and $m\angle 2 = 2x + 29$.
Find x and $m\angle 1$.

$x =$ _____

$m\angle 1 =$ _____



For problem 10, find the following:
A) The slope of the line that contains the 2 points.
B) Find the equation of the line in slope intercept form.
C) Name the slope of all lines that are parallel to the line.
D) Name the slope of all lines that are perpendicular to the line.

10. (3, 6); (2, –3)

A) m = _____

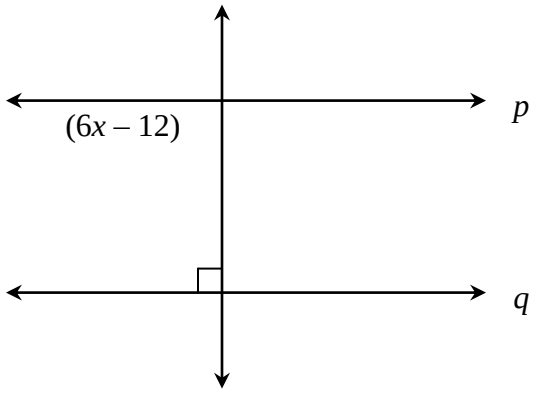
B) Equation is: _____

C) Slopes of lines $\parallel$ are: _____

D) Slopes of lines $\perp$ are: _____

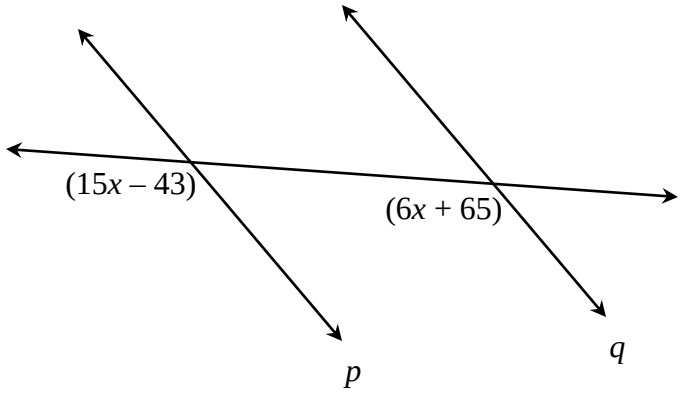
11. Find the value of x so that $p \parallel q$.

$x =$ _____



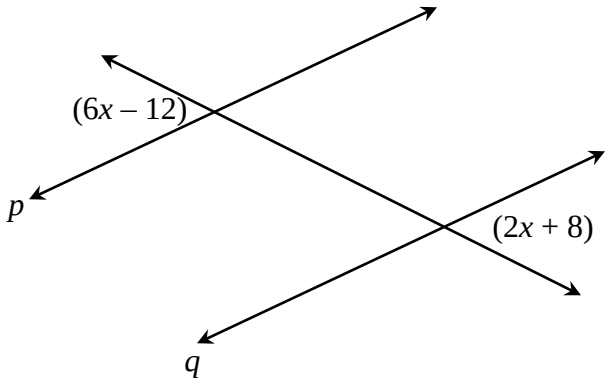
12. Find the value of x so that $p \parallel q$.

$x =$ _____



13. Find the value of x so that $p \parallel q$.

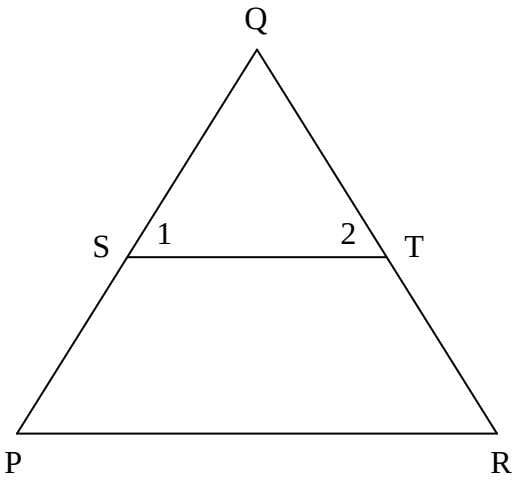
$x =$ _____



14. Write a 2-column proof.

Given: $\angle 1 \cong \angle 2$; $\angle P \cong \angle 2$

Prove: $\overline{ST} \parallel \overline{PR}$



15. Write a 2-column proof.

Given: $l \parallel m$; $\angle 3 \cong \angle 4$

Prove: $m \parallel n$