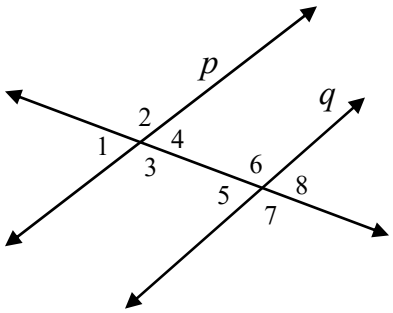
Chapter 3 Practice

1) Name each pair of angles



a) $\angle 1$ and $\angle 2$ _____

b) $\angle 4$ and $\angle 5$ _____

c) $\angle 4$ and $\angle 6$ _____

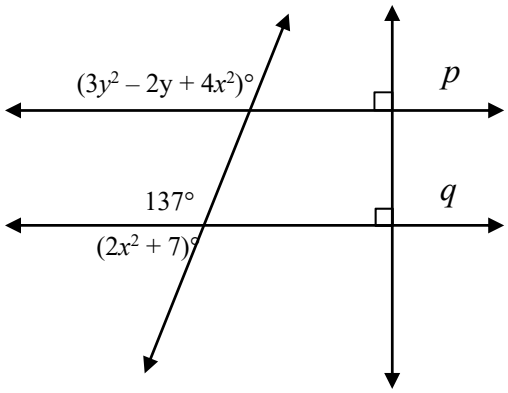
d) $\angle 3$ and $\angle 7$ _____

e) $\angle 2$ and $\angle 3$ _____

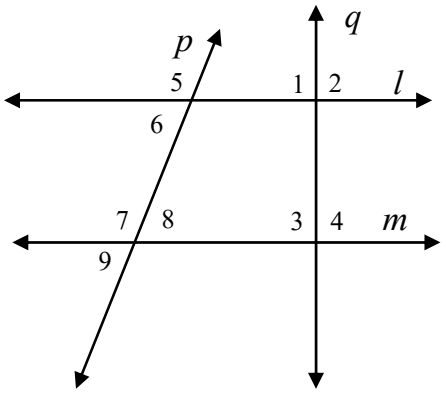
f) $\angle 1$ and $\angle 8$ _____

g) Which of these pairs of angles are congruent?

2) Set up equations and solve for x and y
Justify each equation with a theorem or postulate



3) Given $\angle 6$ is supplementary to $\angle 7$
what can you conclude about the given lines?
What theorem/postulate justifies your answer?

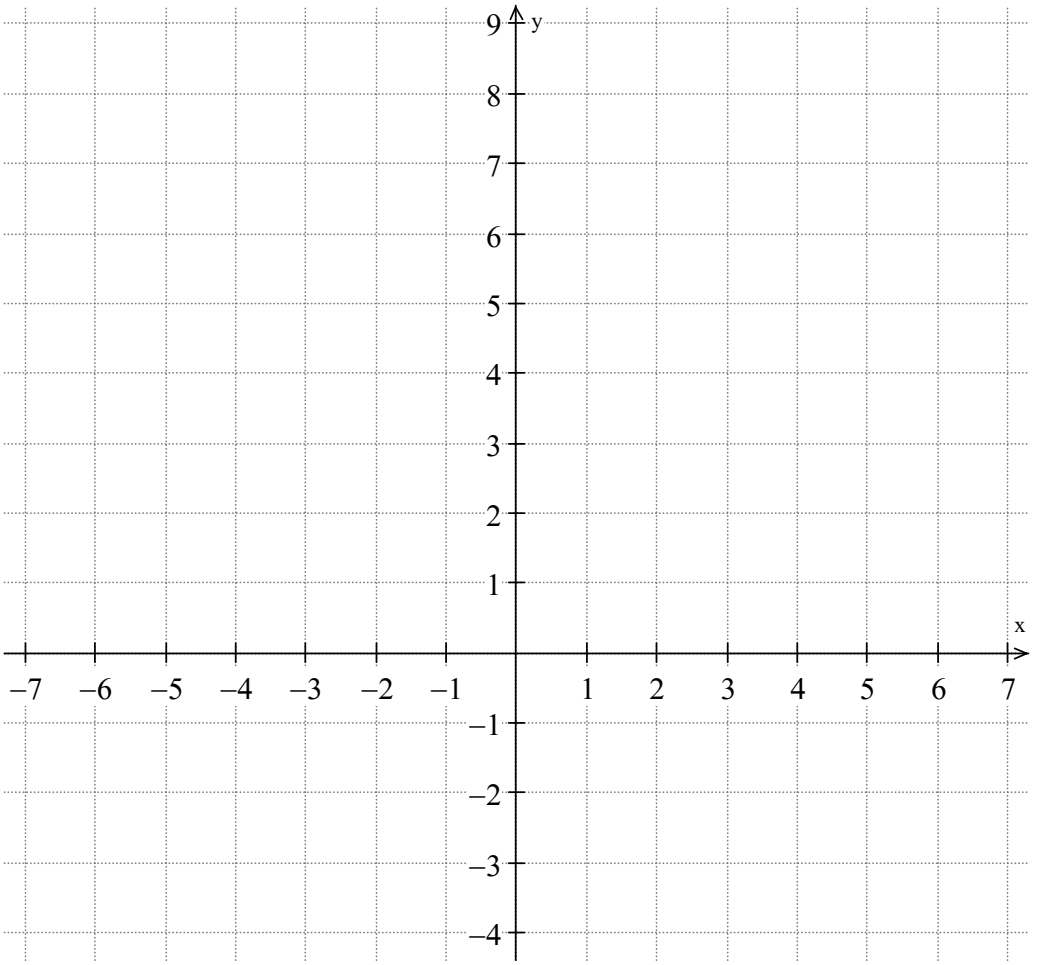


4) Given $m\angle 1 = m\angle 4 = 90°$ what can you conclude about the given lines? What theorems/postulates justify your answer?

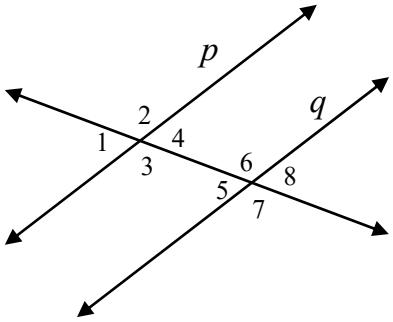
5) Find the equation of the line passing through the points (4, 0) and (–2, –3) in point-slope form.

6) Find the equation in slope intercept form of the line perpendicular to the line in #5 and passing through the point (2, 4)

7) Graph both lines on the grid to the right.



8) Write the theorem/postulate that matches the given statement.



a) If $\angle 1 \cong \angle 5$ then $p \parallel q$ _____

b) If $p \parallel q$ then $\angle 4 \cong \angle 5$ _____

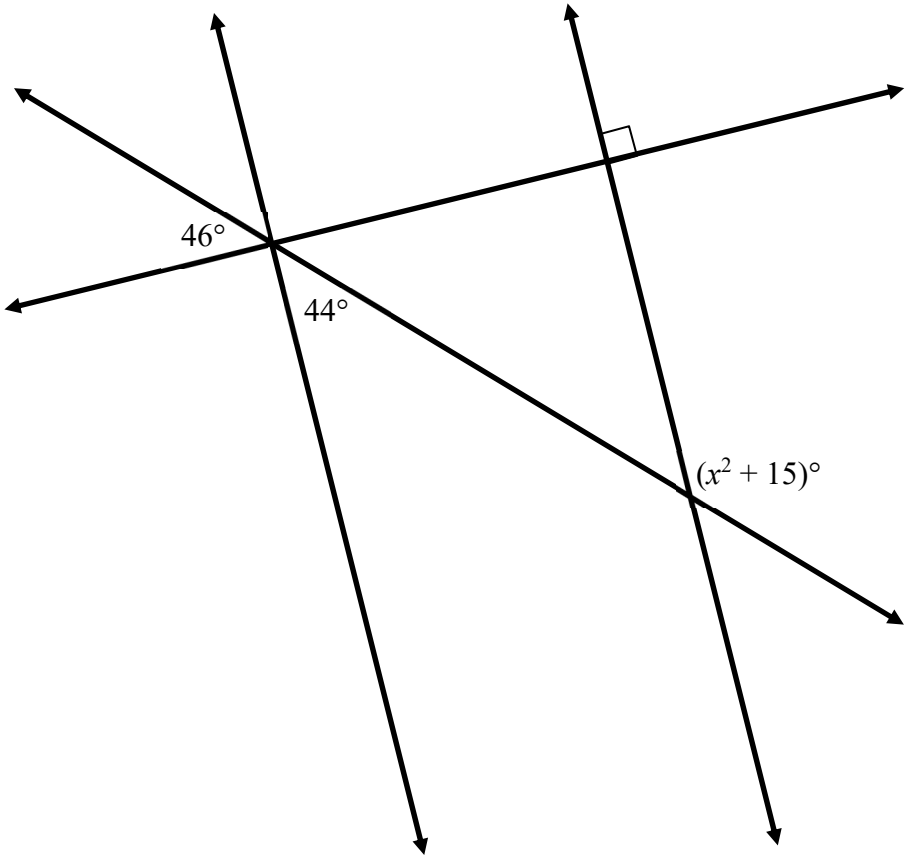
c) If $\angle 4$ is supplementary to $\angle 6$ then $p \parallel q$ _____

d) If $p \parallel q$ then $\angle 3 \cong \angle 7$ _____

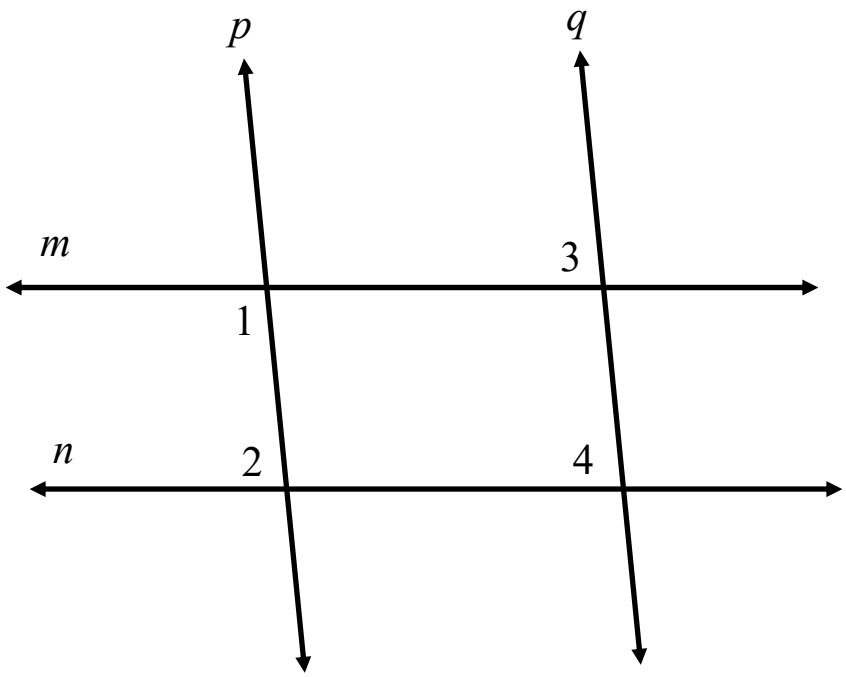
e) If $\angle 2 \cong \angle 6$ then $p \parallel q$ _____

f) If $p \parallel q$ then $\angle 1 \cong \angle 8$ _____

9) Solve for x and justify any equation you use with a theorem/postulate.



10) Given: $\angle 1$ is supplementary to $\angle 2$
$\angle 2 \cong \angle 3$
Prove: $p \parallel q$



Statement	Reason