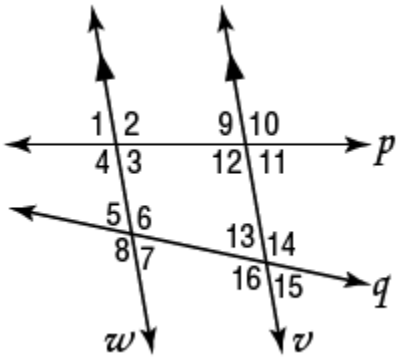
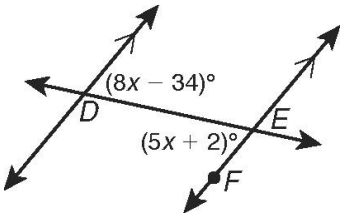
Geometry Worksheet 3.2
Parallel lines and angle relationships

Name _____
Per ___ Date _____

Use the diagram to the right to find the measure of each angle if $m\angle 1 = 81°$ and $m\angle 14 = 117°$.

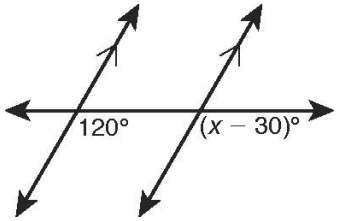


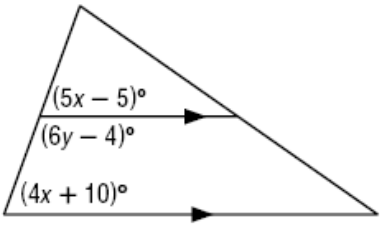
1. $m\angle 2 =$
2. $m\angle 3 =$
3. $m\angle 4 =$
4. $m\angle 10 =$
5. $m\angle 9 =$
6. $m\angle 11 =$
7. $m\angle 6 =$
8. $m\angle 5 =$
9. $m\angle 7 =$
10. $m\angle 15 =$



Use the diagram to the left to find x:
11. (a) equation to find x: (b) x = _____ and why?

Use the diagram to the right to find x:
12. (a) equation to find x: (b) x = _____ and why?

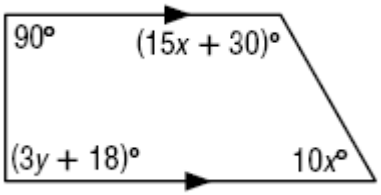




Use the diagram to the left to find x and y:
13. (a) equation to find x: (b) x = _____ and why?

14. (a) equation to find y: (b) y = _____ and why?

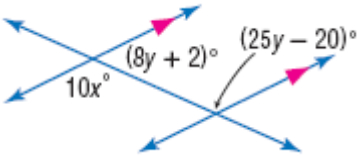
Use the diagram to the right to find x and y:
15. (a) equation to find x: (b) x = _____ and why?



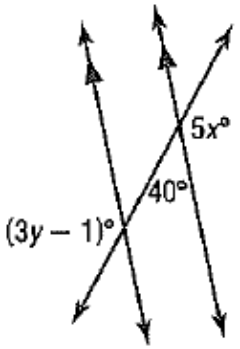
16. (a) equation to find y: (b) y = _____ and why?

Use the diagram to the right to find x and y:

17. (a) equation to find x: (b) x = _____ and why?



18. (a) equation to find y: (b) y = _____ and why?

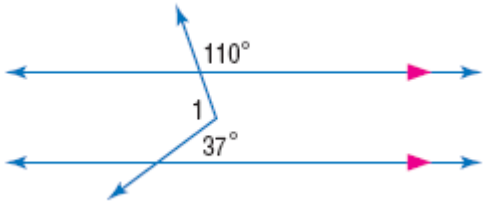


Use the diagram to the left to find x and y:

19. (a) equation to find x: (b) x = _____ and why?

20. (a) equation to find y: (b) y = _____ and why?

21. Solve the crook problem to find the missing angle:



22. Solve the crook problem to find the missing angle: