Lesson 3.1

Homework Answers

Pg 118 - #1-9, 11-25, 30, 32, 33, 39, 40, 45

1. $\overrightarrow{PQ}$ and $\overrightarrow{SR}$ w/transversal $\overrightarrow{SQ}$; alt. int. $\angle's$

2. $\overrightarrow{PS}$ and $\overrightarrow{QR}$ w/transversal $\overrightarrow{SQ}$; alt. int. $\angle's$

3. $\overrightarrow{PS}$ and $\overrightarrow{QR}$ w/transversal $\overrightarrow{PQ}$; same-side int. $\angle's$

4. $\overrightarrow{PS}$ and $\overrightarrow{QR}$ w/transversal $\overrightarrow{SR}$; corr. $\angle's$

5. $\angle 1 \& \angle 2$; corr. $\angle's$

   $\angle 3 \& \angle 4$; alt. int. $\angle's$

   $\angle 5 \& \angle 6$; corr. $\angle's$

6. $\angle 1 \& \angle 2$; same-side int. $\angle's$

   $\angle 3 \& \angle 4$; corr. $\angle's$

   $\angle 5 \& \angle 6$; corr. $\angle's$

7. $\angle 1 \& \angle 2$; corr. $\angle's$

   $\angle 3 \& \angle 4$; same-side int. $\angle's$

   $\angle 5 \& \angle 6$; alt. int. $\angle's$

8. alt. int. $\angle's$

9. a) 2 b) 1 c) corr.

11. $m\angle 1 = 75$ because corr. $\angle's$ of $\square$ lines are $\cong$; $m\angle 2 = 105$ because same-side int. $\angle's$ of $\square$ lines are suppl.

12. $m\angle 1 = 120$ because corr. $\angle's$ of $\square$ lines are $\cong$; $m\angle 2 = 60$ because same-side int. $\angle's$ of $\square$ lines are suppl.

13. $m\angle 1 = 100$ because same-side int. $\angle's$ of $\square$ lines are suppl.; $m\angle 2 = 70$ because alt. int. $\angle's$ of $\square$ lines are $\cong$.

14. 70; the $\angle's$ are 70 & 110

15. 25; the $\angle's$ are both 65

16. 20; the $\angle's$ are 100 and 80

17. $m\angle 1 = m\angle 3 = m\angle 6 = m\angle 8 = m\angle 9 = m\angle 11 = m\angle 13 = m\angle 15 = 52;$

   $m\angle 2 = m\angle 4 = m\angle 5 = m\angle 7 = m\angle 10 = m\angle 12 = m\angle 14 = 128$

18. You must first find the meas. of $1 \angle$.

   All $\angle's$ that are vert., corr., or alt. int. to that $\angle$ will have that meas. All other $\angle's$ will be the supplement of that measure.

19. two

20. four

21. two

22. four

23. 32

24. $x = 76, y = 37, v = 42, w = 25$

25. $x = 135, y = 45$

30. a) 57 b) same-side int. $\angle's$

32. a) $a \square b$ (Given)

   b) $\angle 1 \cong \angle 2$ (Vert. $\angle's$ are $\cong$)

   c) $\angle 2 \cong \angle 3$ (Corr. $\angle's$ are $\cong$)

   d) $\angle 1 \cong \angle 3$ (Trans POC)

33. Never; the two planes do not intersect.

39. D

40. I

45. (0.5, 7)