Parallel Lines Worksheet

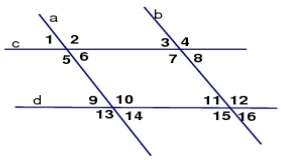
1.) Assume that a//b and c//d.

a. $\angle 2, \angle 7, \angle 5, \angle 10, \angle 12, \angle 13, \angle 15$

b. $\angle 1, \angle 3, \angle 6, \angle 8, \angle 9, \angle 11, \angle 14, \angle 16$

c. $m\angle 14 = 50$ and $m\angle 2 = 130$

d. $m\angle 12 = 180 - x$ and $m\angle 7 = 180 - x$



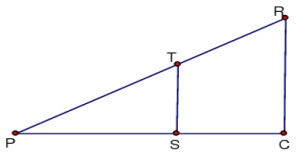
2.) Solve for x, y.

a. k//j;m//n x=60,y=18	**b.** $\overline{AB} // \overline{CD}; \overline{AB} \perp \overline{BC}$ x=13,y=11

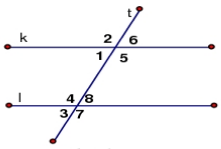
3.) Given: $\overline{PQ} \perp \overline{QR}; \overline{ST} // \overline{QR}; \overline{QT}$ bisects $\angle PQR$.

a. $m\angle QST = 90, m\angle SQT = 45,$ and $m\angle STQ = 45$.

b. $m\angle QTR = 75$.



4.) Write a 2-column proof.



a. See Ms. Chen for answers.

b. Check out your notes for answers.

5.) State which segments (if any) are parallel? State the postulate or theorem that justifies your answer.

a. $\overline{OX} // \overline{IZ}$ because 2 lines cut by a trans. and corr. angles are congruent implies that the 2 lines are //.	**b.** $\overline{LA} // \overline{TS}$ because **in a plane**, 2 lines perpendicular to the same line are //.

6.) Use the given information to name the segments that must be //. If there are no such segments, say so.

a. $\overline{AR} // \overline{PL}$

b. $\overline{AP} // \overline{LR}$

c. None

d. $\overline{AR} // \overline{PL}$

e. None

f. $\overline{AR} // \overline{PL}$