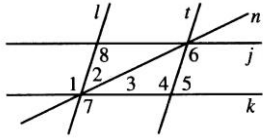


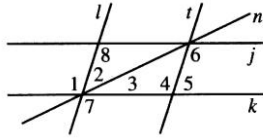
SECTION 3.3 WORKSHEET – DAY 2

I-10: What two lines (if any) are parallel if the given information is true?

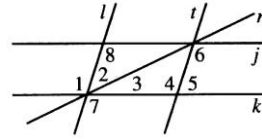
1) $m(\angle 1) = m(\angle 4)$



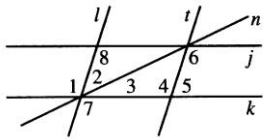
2) $m(\angle 6) = m(\angle 4)$



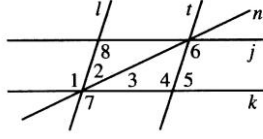
3) $m(\angle 2) + m(\angle 3) = m(\angle 5)$



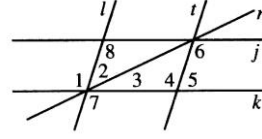
4) $m(\angle 2) + m(\angle 3) + m(\angle 8) = 180$



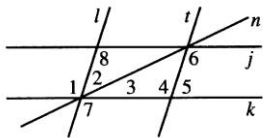
5) $\angle 6 \cong \angle 8$



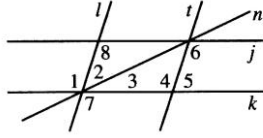
6) $\angle 7 \cong \angle 1$



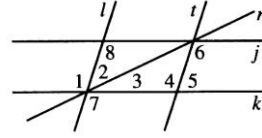
7) $m(\angle 1) = m(\angle 8) = 75$



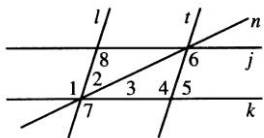
8) $\angle 5$ and $\angle 6$ are supplementary



9) $\angle 4$ and $\angle 5$ are supplementary



10) $\angle 2$ and $\angle 3$ are complementary and $m(\angle 5) = 90$

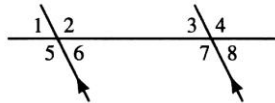


11-12: Complete with *always*, *sometimes*, or *never*.

11) Two skew lines are _____ parallel.

12) In a plane, two lines perpendicular to a third line are _____ parallel.

13-15: Refer to the diagram below.

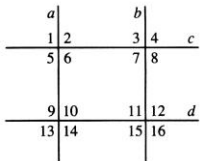


13) Name a pair of congruent alternate interior angles.

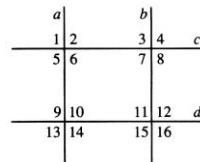
14) Name a pair of supplementary same-side interior angles.

15) Name a pair of congruent corresponding angles.

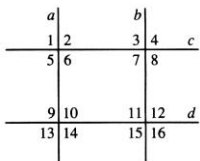
16) If $m(\angle 8) + m(\angle 12) = 180$, then _____ \parallel _____.



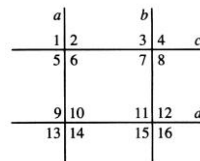
17) If $c \parallel d$ and $m(\angle 6) = 90$, then $m(\angle 5) =$ _____ and $m(\angle 9) =$ _____.



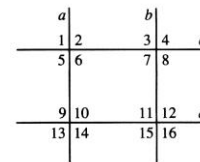
18) If $\angle 7 \cong \angle 15$ then _____ \parallel _____.



19) If $\angle 11 \cong \angle 14$ then _____ \parallel _____.



20) If $a \parallel b$, name all angles congruent to $\angle 1$.

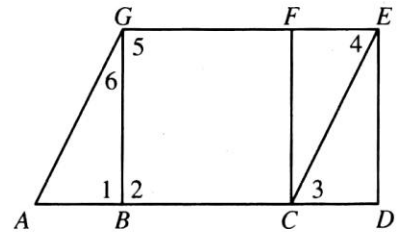


Proving Lines Parallel

For use after Section 3-3

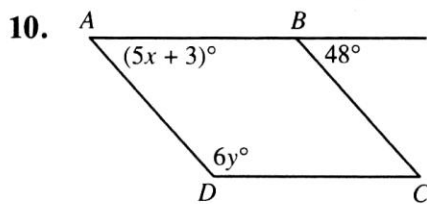
Use the information given to name the segments that must be parallel. If there are no such segments, write *none*.

1. $m\angle A = m\angle 3$ _____
2. $m\angle 3 = m\angle 4$ _____
3. $\overline{GB} \parallel \overline{FC}$ and $\overline{ED} \parallel \overline{FC}$ _____
4. $m\angle 3 + m\angle AGF = 180$ _____
5. $m\angle D + m\angle 2 = 180$ _____
6. $\angle D \cong \angle 1$ _____
7. $m\angle 6 + m\angle 5 = 180 - m\angle A$ _____
8. $\overline{GB} \perp \overline{AD}$ and $\overline{ED} \perp \overline{AD}$ _____
9. $\angle 5 \cong \angle 1$ _____

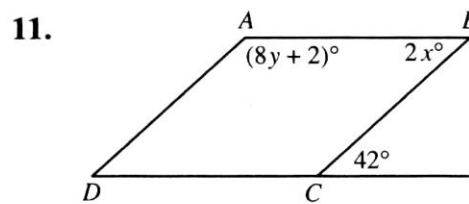


Exs. 1-9

Find the values of x and y that make $\overline{AB} \parallel \overline{DC}$ and $\overline{AD} \parallel \overline{BC}$.



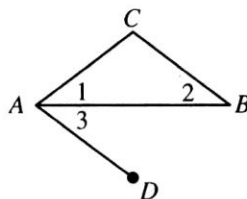
$x =$ _____, $y =$ _____



$x =$ _____, $y =$ _____

Supply the statements or reasons needed to complete the proof.

12. Given: \overrightarrow{AB} bisects $\angle CAD$;
 $\angle 1 \cong \angle 2$
 Prove: $\overline{AD} \parallel \overline{BC}$



Proof:

Statements	Reasons
1. \overrightarrow{AB} bisects $\angle CAD$.	1. _____
2. $\angle 3 \cong \angle 1$	2. _____
3. _____	3. Given
4. $\angle 3 \cong \angle 2$	4. _____
5. $\overline{AD} \parallel \overline{BC}$	5. _____