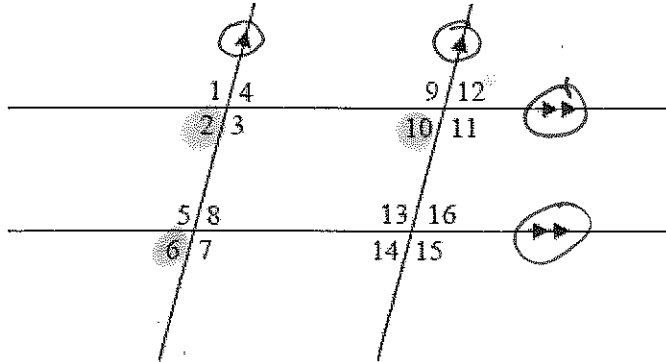


Name: _____
 Date: _____ Hr: _____

3.2 Proofs Practice



- 1.) Given : $a \parallel b, c \parallel d$
 Prove : $\angle 1 \cong \angle 15$

Statements	Reasons
1) $a \parallel b, c \parallel d$	1) Given
2) $\angle 1 \cong \angle 9$	2) If \parallel , then corr \angle s \cong
3) $\angle 9 \cong \angle 15$	3) If \parallel , then alt. ext \angle s \cong
4) $\angle 1 \cong \angle 15$	4) Transitive

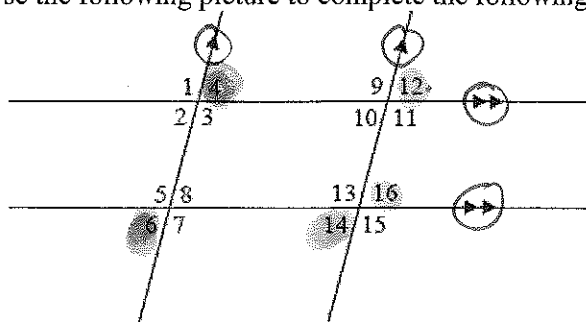
Possible Statements:
 A: $a \parallel b, c \parallel d$ B: $\angle 1 \cong \angle 15$ C: $\angle 1 \cong \angle 9$ D: $\angle 9 \cong \angle 15$

- 2.) Use the same picture above.
 Given : $a \parallel b, c \parallel d$
 Prove : $\angle 6 \cong \angle 10$

Statements	Reasons
1) $a \parallel b, c \parallel d$	1) Given
2) $\angle 6 \cong \angle 2$	2) If \parallel , then corr \angle s \cong
3) $\angle 2 \cong \angle 10$	3) If \parallel , then corr. \angle s \cong
4) $\angle 6 \cong \angle 10$	4) Transitive

Possible Statements:
 A: $a \parallel b, c \parallel d$ B: $\angle 2 \cong \angle 10$ C: $\angle 6 \cong \angle 10$ D: $\angle 6 \cong \angle 2$

Use the following picture to complete the following proofs.



For all proofs: Given : $a \parallel b, c \parallel d$

3. Prove : $\angle 4 \cong \angle 16$

- Statements
- 1) $a \parallel b, c \parallel d$
 - 2) $\angle 4 \cong \angle 12$
 - 3) $\angle 12 \cong \angle 16$
 - 4) $\angle 4 \cong \angle 16$

- Reasons
- 1) Given
 - 2) If \parallel , then corr. \angle s \cong
 - 3) Corresponding Angles \cong
 - 4) Transitive

4. Prove: $\angle 4 \cong \angle 14$

- Statements
- 1) $a \parallel b, c \parallel d$
 - 2) $\angle 4 \cong \angle 6$
 - 3) $\angle 6 \cong \angle 14$
 - 4) $\angle 4 \cong \angle 14$

- Reasons
- 1) Given
 - 2) Alternate Exterior Angles \cong
 - 3) If \parallel , then corr \angle s \cong
 - 4) Transitive

5. Prove: $\angle 3 \cong \angle 13$

- Statements
- 1)
 - 2)
 - 3)
 - 4)

- Reasons
- 1)
 - 2)
 - 3)
 - 4)