## Additional Practice with Proving Triangles are Congruent

For each of the following, write a two-column proof.
1.

Given: $\overline{A B} \cong \overline{D F}$
$\overline{A C} \cong \overline{D E}$ $\overline{B C} \cong \overline{E F}$
Prove: $\triangle A B C \cong \triangle D F E$

2.

Given: $\angle T \cong \angle N$

$$
\angle T A B \cong \angle N A B
$$

Prove: $\triangle T A B \cong \triangle N A B$

4.

Given: $\angle M \cong \angle P$

5.

Given: $\angle \mathrm{B} \cong \angle \mathrm{C}$

$$
\begin{aligned}
& \angle \mathrm{A} \\
& \overline{A C} \cong \angle \mathrm{O} \\
& \cong \overline{B O}
\end{aligned}
$$

Prove: $\triangle C A R \cong \triangle B O X$

6.

Given: X is the midpoint of $\overline{A I}$

$$
\begin{aligned}
& \angle \mathrm{A} \cong \angle \mathrm{I} \\
& \overline{M A} \cong \overline{I N}
\end{aligned}
$$

Prove: $\triangle M A X \cong \triangle N I X$

8.

Given: $\overline{P T} \perp \overline{A E}$

$$
\overline{A T} \cong \overline{T E}
$$

Prove: $\triangle \mathrm{PAT} \cong \triangle \mathrm{PET}$

10.

Given: $\angle \mathrm{KWL} \cong \angle \mathrm{ALW}$ $\angle \mathrm{AWL} \cong \angle \mathrm{WLK}$
Prove: $\triangle \mathrm{KWL} \cong \triangle \mathrm{ALW}$


## Additional Practice with Proofs with CPCTC

For each of the following, write a two-column proof.
1.

Given: $\overline{A D} \perp \overline{B C}$ $\overline{B D} \cong \overline{C D}$
Prove: $\overline{A B} \cong \overline{A C}$

2.

Given: $\overline{C L} \cong \overline{P A}$
Prove: $\frac{\angle 1 \cong}{L A} \cong \overline{C P}$

4.

Given: I is the midpoint of $\overline{C M}$ I is the midpoint of $\overline{B L}$ Prove: $\overline{C L} \cong \overline{M B}$

5.

Given: $\overline{P A} \| \overline{T N}$
$\overline{P N}$ bisects $\overline{A T}$
Prove: $\overline{P I} \cong \overline{I N}$

6.

Given: $\overline{S E} \cong \overline{S U}$
Prove: $\overline{M S} \cong \overline{O S}$

7.

Given: $\overline{P T} \cong \overline{P A}$
$\overline{P R} \perp \overline{A T}$
Prove: R is the midpoint of $\overline{A T}$

8.

Given: $\overline{T O} \cong \overline{A Z}$
$\angle O \cong \angle A$


Prove: $\triangle \mathrm{TOP} \cong \Delta \mathrm{ZAP}$
10.

Given: $\begin{aligned} & \overline{S A} \cong \overline{N E} \\ & \overline{S E} \| \overline{N A}\end{aligned}$
Prove: $\overline{S A} \cong \overline{N E}$


## Unit 4 Triangle Congruence Proofs Review

Directions: For each of the following problems, create a two column proof.
1.

Given: $\overline{A T}$ bisects $\angle L A S$ $\overline{L A} \cong \overline{A S}$
Prove: $\triangle \mathrm{ATL} \cong \triangle \mathrm{ATS}$

2.

Given: $\overline{P A}$ bisects $\angle L P N$ $\overline{P A}$ bisects $\angle L A N{ }_{P}$
Prove: $\angle N \cong \angle L$

3.

Given: $\overline{P A} \| \overline{T N}$
$\overline{P N}$ bisects $\overline{A T}$
Prove: $\overline{P I} \cong \overline{I N}$


STATEMENTS
REASONS
4.

Given: $\overline{P T} \perp \overline{A E}$
$\overline{A T} \cong \overline{T E}$
Prove: $\triangle \mathrm{PAT} \cong \triangle \mathrm{PET}$

5.

Given: I is the midpoint of $\overline{C M}$
I is the midpoint of $\overline{B L}$
Prove: $\overline{C L} \cong \overline{M B}$

6.

Given: $\overline{P A} \| \overline{T R}$
$\overline{P A} \cong \overline{T R}$
Prove: $\overline{P T} \cong \overline{A R}$


