## Geometry Chapter 4 Pre-Test

1.) ( 10 pts each, 60 pts total) Evaluate each of the following triangles. If they are congruent, state which theorem suggests they are congruent (SAS, ASA, SSS, AAS, HL) and write a congruence statement.
a) Theorem:

Triangle Congruence:

b) Theorem:

Triangle Congruence:

c) Theorem:

Triangle Congruence:

d) Theorem:

Triangle Congruence:

e) Theorem:

Triangle Congruence:

f) Theorem:

Triangle Congruence:

2.) ( 10 pts each, 20 pts total) Prove which of the following triangles congruent if possible by filling in the missing blanks:
a) (10 pts)
a. Given $\overline{C B} \cong \overline{A D}$ and $\overleftrightarrow{C B} \| \overleftrightarrow{A D}$


| Statements | Reasons |
| :--- | :--- |
| 1. $\overline{C B} \cong \overline{A D}$ |  |
| 2. $\overleftrightarrow{C B} \\| \overleftrightarrow{A D}$ |  |
| 3. $\Varangle C B D \cong \Varangle A D B$ |  |
| 4. $\overline{B D} \cong \overline{B D}$ |  |
| 5. $\triangle B C D \cong \triangle D A B$ |  |

b) (10 pts)
c. Given $\overline{V O} \cong \overline{R O}$ and $\overleftrightarrow{P R} \| \overleftrightarrow{V E}$


| Statements | Reasons |
| :--- | :--- |
| 1. | Given |
| 2. | Given |
| 3. |  |
| 4. |  |
| $5 . \triangle P R O \cong \triangle E V O$ |  |

3.) (5 pts each, 20 pts total) Find the missing measurement or variable(s).
a) ? =

b) $x=$
$y=$

c) $x=$
$y=$

d) $\begin{aligned} & x= \\ & y=\end{aligned}$


