1) **GIVEN**:

T is the midpoint of $\overline{ME}$

& $\angle G \cong \angle J$

PROVE:

T is the midpoint of $\overline{GJ}$
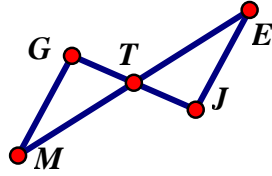
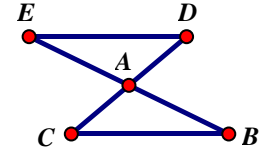| STATEMENT	REASON

2) **GIVEN**:

$\angle D \cong \angle C$ & $\overline{CA} \cong \overline{DA}$

PROVE:

$\overline{EA} \cong \overline{BA}$

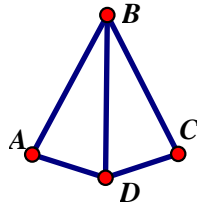| STATEMENT	REASON

3) **GIVEN**:

$\overline{AB} \cong \overline{CB}$

$\overline{BD}$ bisects $\angle ABC$

PROVE:

$\overline{BD}$ bisects $\angle ADC$

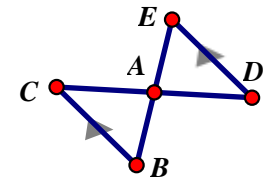| STATEMENT	REASON

4) **GIVEN**:

$\angle C \cong \angle D$ & $\overline{CA} \cong \overline{DA}$

PROVE:

$\overline{BA} \cong \overline{EA}$
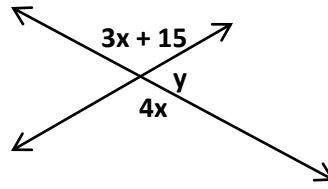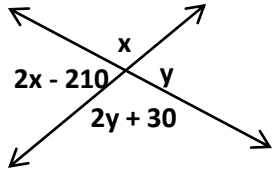
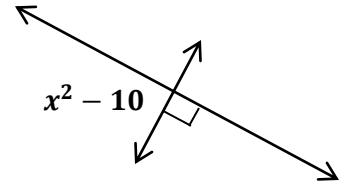| STATEMENT	REASON

5. Solve the following.

a) x = _____   y = _____   b) x = _____   y = _____   c) x = _____

x
2x - 210   y
2y + 30

3x + 15
y
4x

$x^2 - 10$

2. Name a pair of vertical angles. _____

3. Name a linear pair. _____

4. Name a pair of adjacent angles. _____

5. Name a pair of supplementary angles. _____

6. Name a pair of complementary angles. _____

2
3
1
4
5

7. If ∠A and ∠B are supplements and m∠A = 78°, what is m∠B? _____

8. If ∠A and ∠B are complements and m∠A = 59°, what is m∠B? _____

9. If ∠A and ∠B are supplements and m∠A = x°, what is m∠B? _____

10. If ∠A and ∠B are complements and m∠A = 3x°, what is m∠B? _____

11. If ∠A and ∠B are vertical angles and m∠A = 102°, what is m∠B? _____

12. If ∠A and ∠B are a linear pair and m∠A = (-12x + 13)° and m∠B = (-21x + 2)°, what is the value of x? x = _____

13. If ∠A and ∠B are vertical angles and m∠A = (7x - 19)° and m∠B = (4x + 2)°, what is the value of x? x = _____