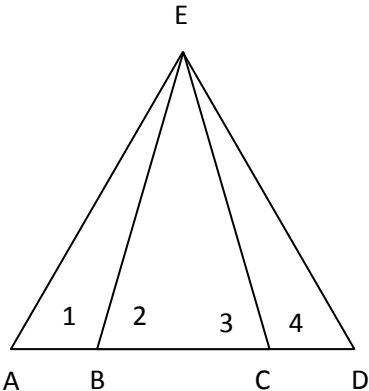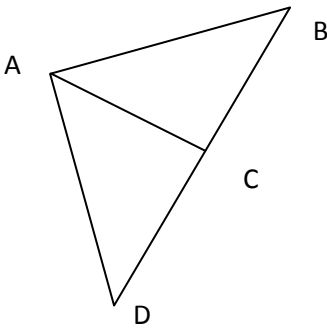Name: _____   Date _____

Topic: Indirect Euclidean Proofs - Worksheet 1

Write reasons for the following statements of proofs:

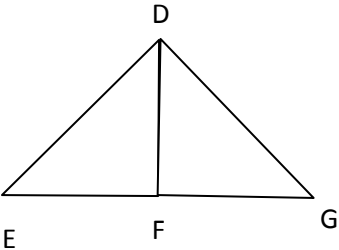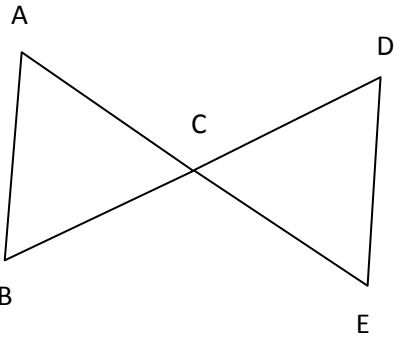|		
E (triangle diagram with vertex E at top, base points A, B, C, D, and angles 1, 2, 3, 4) GIVEN : AB ≅ CD △ EB ≅ EC	1.	**Given**
	2.	**Addition property of equality**
	3.	**Partition postulate**
	4.	**Base Angles Theorem**
	5.	**Substitution**
	6.	**SAS**
(triangle diagram with points A, B, C, D) Given :	7.	**Definition of perpendicular lines**
	8.	**Definition of bisector**
	9.	**Reflexive property of congruence**
	10.	**SAS Postulate**

Name: _____   Date _____

Topic: Indirect Euclidean Proofs - Worksheet 2

Write reasons for the following statements of proofs:

  Given : DF bisects < DEG	1.	**Definition of angle bisector**
	2.	**Given**
	3.	**Pythagoras Theorem**
	4.	**Reflexive property of congruence**
	5.	**ASA**
  Given : <BAC = < DEC	6.	**Given**
	7.	**Vertical angles are congruent**
	8.	**ASA**
	9.	**Bisector divides a segment into equal halves**
	10.	**CPCTC**
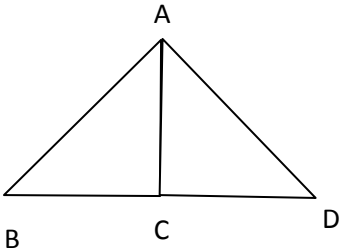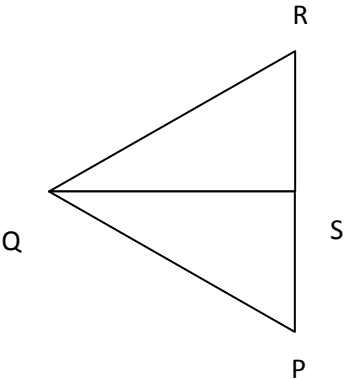
Name: _____   Date _____

Write reasons for the following statements of proofs:

  Given : AC bisects < ABC	1.	**Given**
	2.	**Reflexive property of congruence**
	3.	**Definition of angle bisector**
	4.	**ASA**
	5.	**Pythagoras Theorem**
  Given : ABCD is a parallelogram	6.	**Given**
	7.	**Bisector divides angle into 2 congruent angles**
	8.	**Reflexive property of congruence**
	9.	**Pythagoras Theorem**
	10.	**SAS**

Name: _____   Date _____

Write reasons for the following statements of proofs:

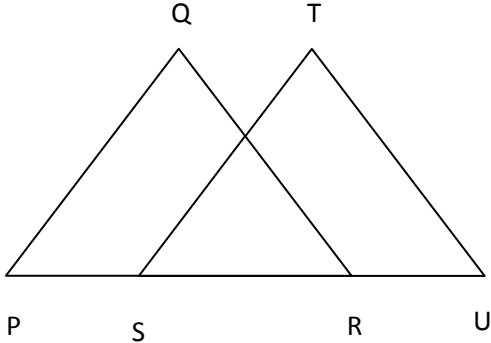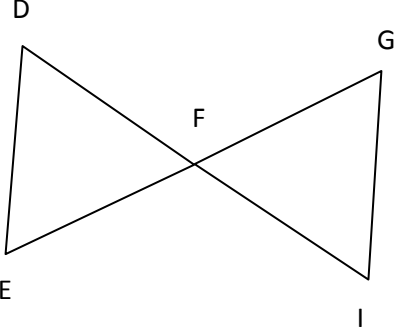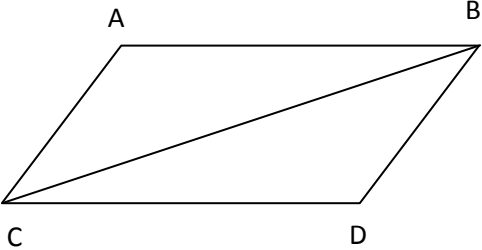|		
Q T	1.	**Given**
	2.	**Given**
	3.	**Corresponding angles of parallel lines are congruent**
P S R U	4.	**Given**
Given:	5.	**Addition property of equality**
__ __	6.	**Partition postulate**
QR || TU	7.	**Partition postulate**
	8.	**Substitution property**
	9.	**AAS**
	10.	**CPCTC**

Name: _____   Date _____

Topic: Indirect Euclidean Proofs - Worksheet 5

Write reasons for the following statements of proofs:

D G F E I Given : ___ ___ <EDF = < GIF	1.	**Given**
	2.	**Bisector divides a segment into equal halves**
	3.	**Vertical angles are congruent**
	4.	**ASA**
	5.	**CPCTC**
A B C D Given : ABCD is a parallelogram	6.	**Definition of parallelogram**
	7.	**Definition of parallelogram**
	8.	**Alternate interior angles of parallel lines are congruent.**
	9.	**Reflexive property of congruence**
	10.	**ASA**