

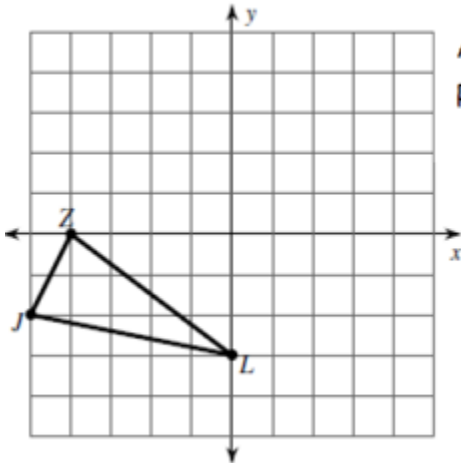
UNIT 2 TEST REVIEW MATERIALS

Name: _____

Unit 1 Material

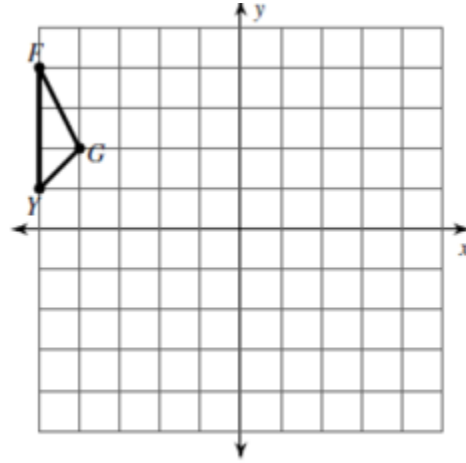
Graph the image of the figure using the transformation given and give the algebraic rule.

- 1) Rotation 90° counter clockwise about the origin



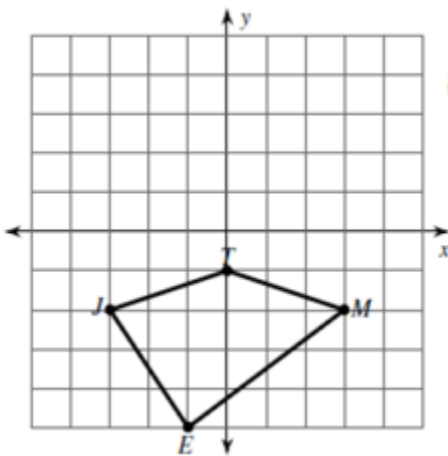
Algebraic Rule:

- 2) Translation 4 units right and 1 down, then reflect over the y-axis



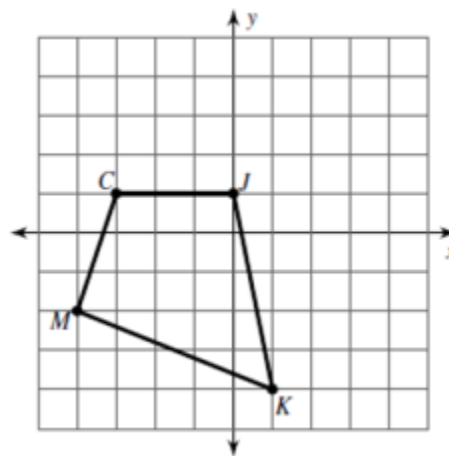
Algebraic Rule:

- 3) reflect of the line $y = -x$



Algebraic Rule:

- 4) Reflect over the the x -axis then the y -axis



Algebraic Rule:

- 5) What single transformation can be performed to replicate the composition of transformations in #4?

Find the coordinates of the vertices of the figure using the transformation given:

- 6) rotation 180° about the origin
 $E(2, -2), J(1, 2), R(3, 3), S(5, 2)$

Vertices:

- 7) reflection across $y = 2$
 $J(1, 3), U(0, 5), R(1, 5), C(3, 2)$

Vertices:

- 8) translation: 7 units right and 1 unit down
 $J(-3, 1), F(-2, 3), N(-2, 0)$

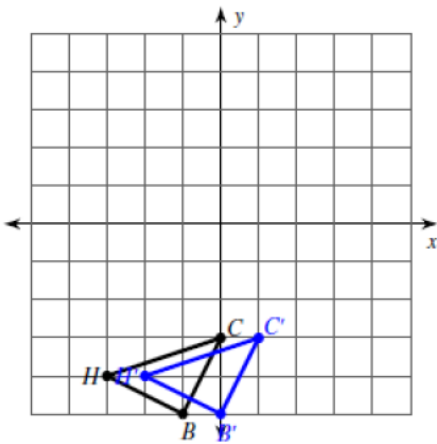
Vertices:

- 9) translation: 6 units right and 3 units down
 $S(-3, 3), C(-1, 4), W(-2, -1)$

Vertices:

Write a description of the transformation which occurred from the pre-image to image below.

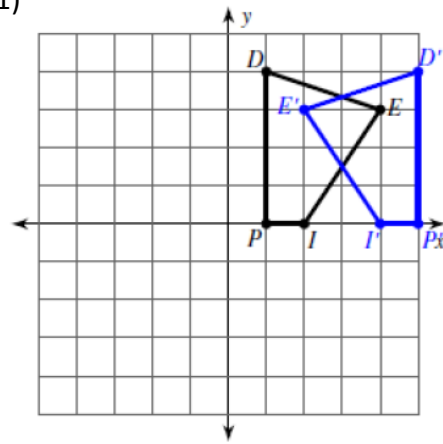
10)



Description:

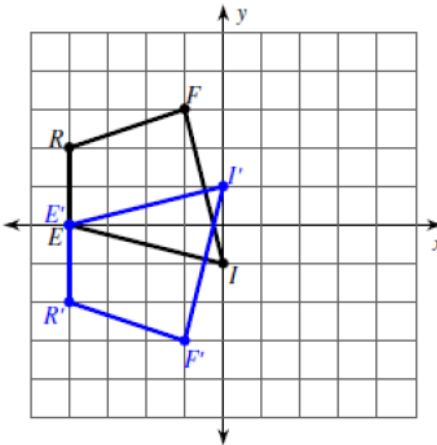
Algebraic Rule:

11)



Description:

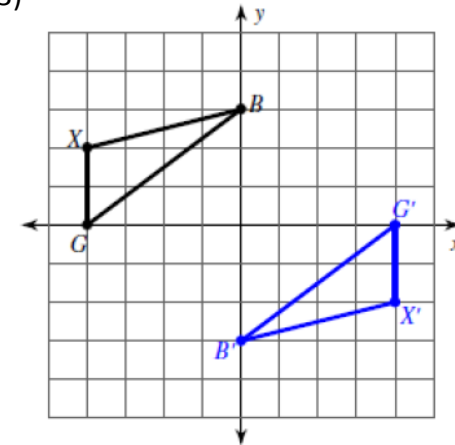
12)



Description:

Algebraic Rule:

13)

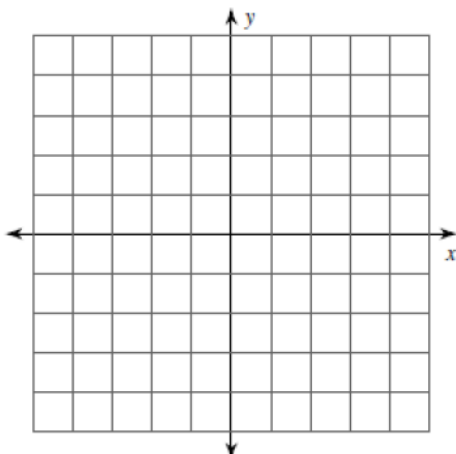


Description:

Algebraic Rule:

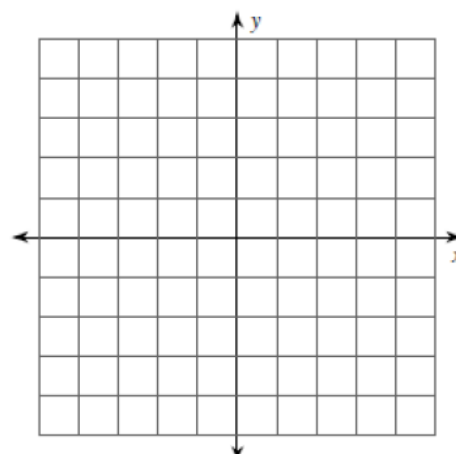
Graph the image of the figure using the transformation given and write the algebraic rule.

- 14) rotation 90° clockwise about the origin
 $B(-2, 0), C(-4, 3), Z(-3, 4), X(-1, 4)$



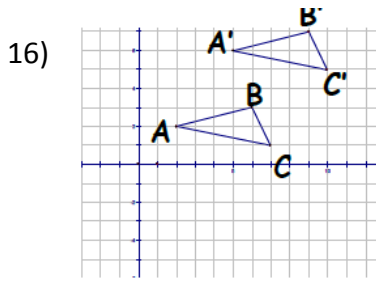
Algebraic Rule:

- 15) reflection across $y = x$
 $K(-5, -2), A(-4, 1), I(0, -1), J(-2, -4)$



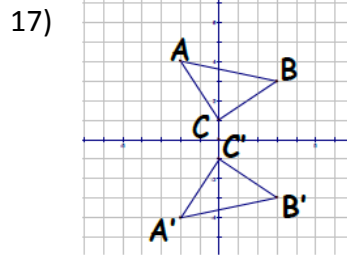
Algebraic Rule:

Describe the transformations on the graph and write the algebraic rule.



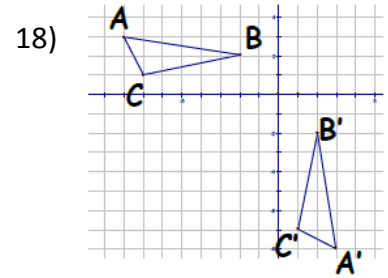
Description: _____

Algebraic Rule: _____



Description: _____

Algebraic Rule: _____



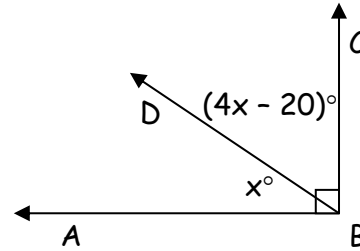
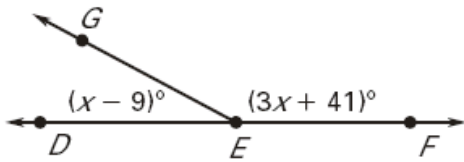
Description: _____

Algebraic Rule: _____

Unit 2 Material

1) Find $m\angle DEG$ and $m\angle GEF$.

2) Find $m\angle DBC$.

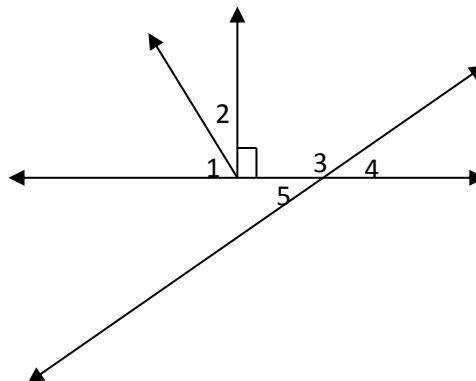


3) $\angle 1$ and $\angle 2$ are complementary. $m\angle 1 = 2x + 7$ and $m\angle 2 = 4x - 19$. Find the measure of each angle.

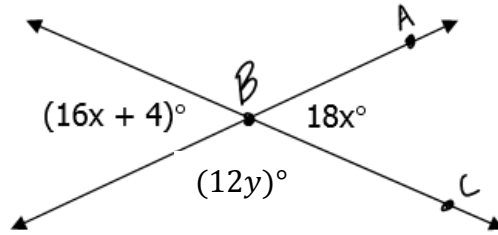
4) $\angle 3$ and $\angle 4$ are supplementary. $m\angle 3 = 5x + 22$ and $m\angle 4 = 7x + 2$. Find the measure of each angle.

5) Identify each pair of angles as adjacent, vertical, complementary, supplementary, and/or linear pair.

- a) $\angle 1$ and $\angle 2$
- b) $\angle 3$ and $\angle 4$
- c) $\angle 5$ and $\angle 4$
- d) $\angle 3$ and $\angle 5$

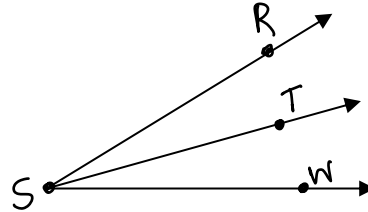


- 6) $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$
 $m\angle ABC = \underline{\hspace{2cm}}$



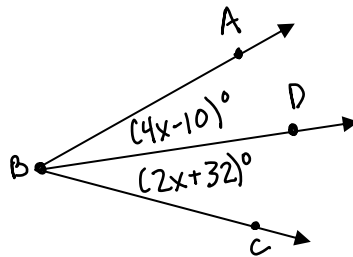
- 7) \overrightarrow{ST} bisects $\angle RSW$, $m\angle RST = 27^\circ$

$m\angle TSW = \underline{\hspace{2cm}}$ $m\angle WSR = \underline{\hspace{2cm}}$

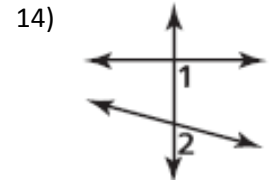
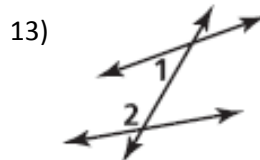
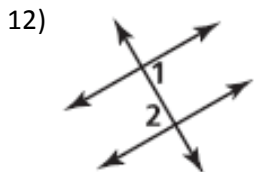
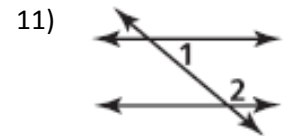
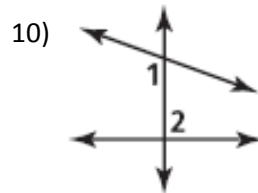
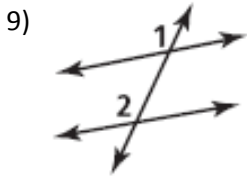


- 8) \overrightarrow{BD} bisects $\angle ABC$

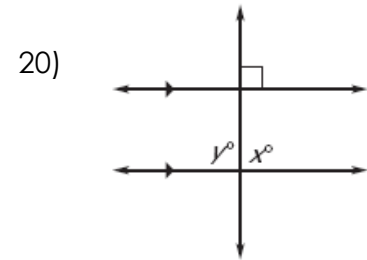
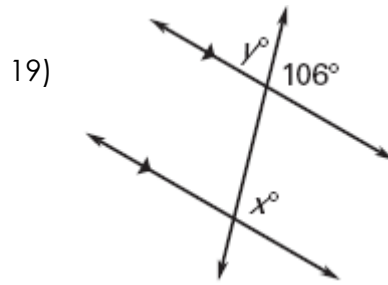
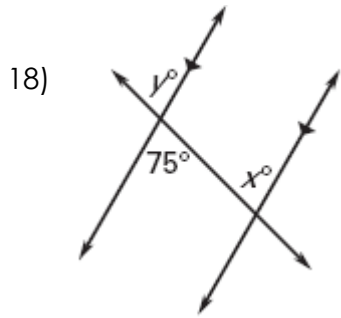
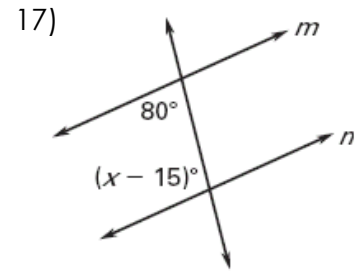
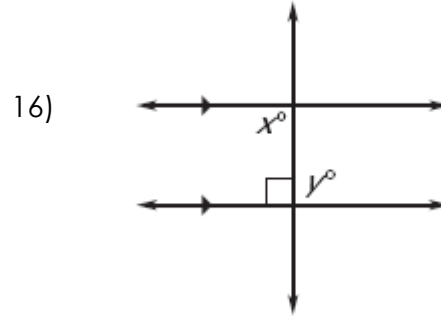
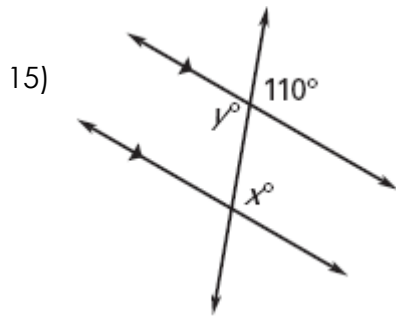
$x = \underline{\hspace{2cm}}$
 $m\angle ABC = \underline{\hspace{2cm}}$



Classify each pair of angles as corresponding, alternate interior, alternate exterior, consecutive interior, or consecutive exterior.



Find the values of x and y .



21) $\triangle LMC \cong \triangle BJK$

Complete the congruence statements. (Name all congruent angles. Name all congruent sides.)

3. $\overline{LC} \cong$ _____

7. $\angle K \cong$ _____

4. $\overline{KJ} \cong$ _____

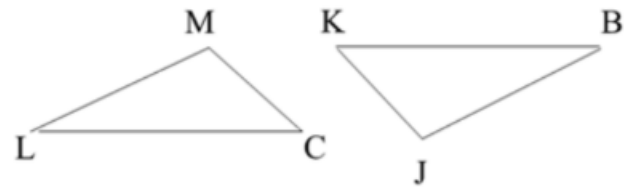
8. $\angle M \cong$ _____

5. $\overline{JB} \cong$ _____

9. $\triangle CML \cong$ _____

6. $\angle L \cong$ _____

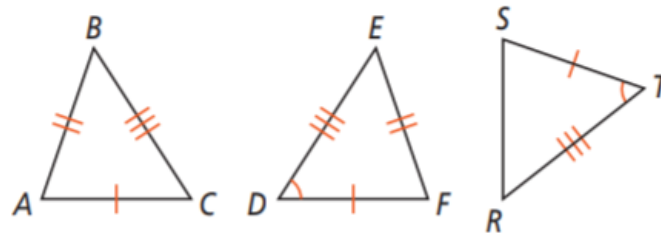
10. $\triangle KBJ \cong$ _____



22) Use the figures below to complete the following statements:

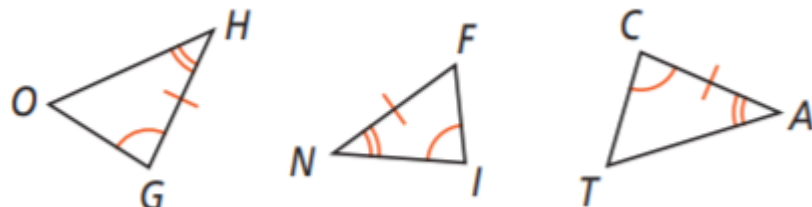
a. $\triangle DEF \cong \triangle$ _____ by SAS \cong

b. $\triangle ABC \cong \triangle$ _____ by SSS \cong



23) Which two triangles below are congruent by ASA? Write a congruence statement.

\triangle _____ \cong \triangle _____ by ASA \cong



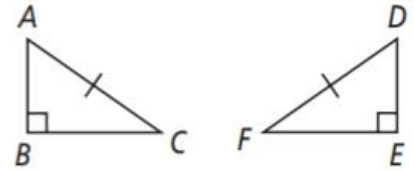
24) Which additional piece of information would allow you to prove that the triangles are congruent by the HL theorem?

(A) $m\angle DFE = 40$

(C) $\overline{AB} \cong \overline{DE}$

(B) $m\angle F = m\angle ABC$

(D) $\overline{AC} \cong \overline{DF}$



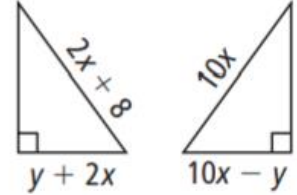
25) For what values of x and y are the triangles shown congruent?

(F) $x = 1, y = 4$

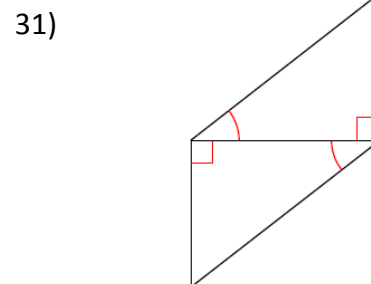
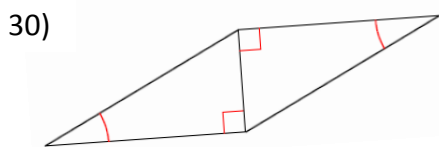
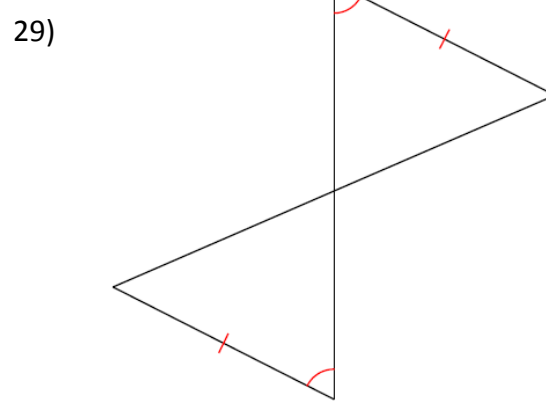
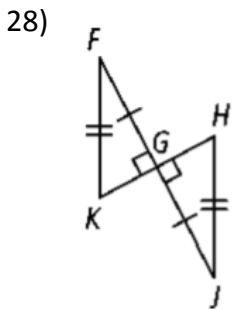
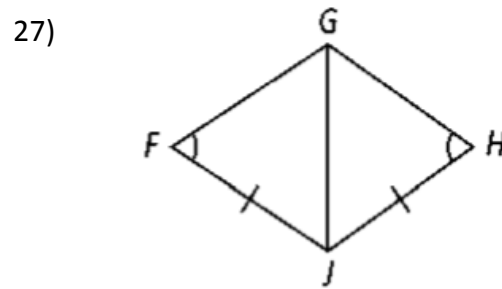
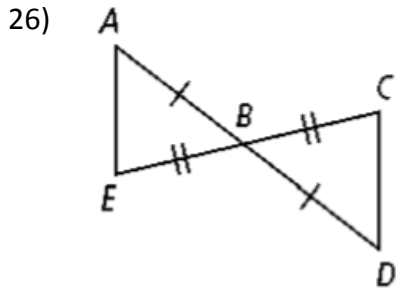
(H) $x = 4, y = 1$

(G) $x = 2, y = 4$

(I) $x = 1, y = 3$

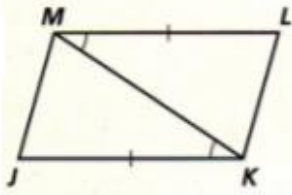


State the postulate or theorem you can use to prove each pair of triangles congruent. If the triangles cannot be proven congruent, write *not enough information*.

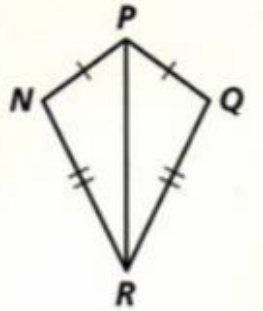


Determine whether the following triangles are congruent, if so complete the congruent statement.

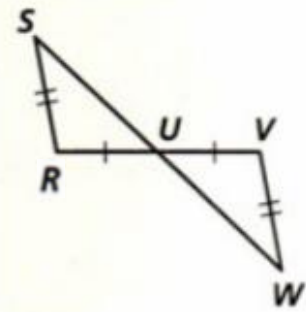
32)



33)



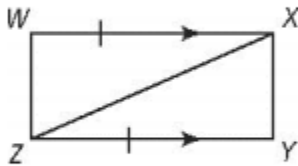
34)



$\triangle MJK \cong \triangle$ _____ by _____ $\triangle NPR \cong \triangle$ _____ by _____ $\triangle SRU \cong \triangle$ _____ by _____

Triangle Congruence Proofs:

35) Given: $\overline{WX} \parallel \overline{YZ}, \overline{WX} \cong \overline{YZ}$
 Prove: $\triangle WXZ \cong \triangle YZX$

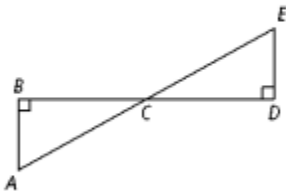


Statements	Reasons

36) Given: $\angle B$ and $\angle D$ are right angles.

\overline{AE} bisects \overline{BD}

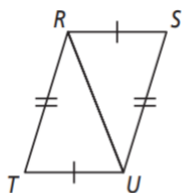
Prove: $\triangle ABC \cong \triangle EDC$



Statements	Reasons

37) **Given:** $\overline{RS} \cong \overline{UT}$, $\overline{RT} \cong \overline{US}$

Prove: $\angle T \cong \angle S$

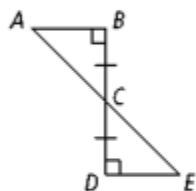


Statements	Reasons

38) **Given:** $\overline{BD} \perp \overline{AB}$

$\overline{BC} \cong \overline{DC}$

Prove: $\angle A \cong \angle E$



Statements	Reasons