

NAME: _____

1. 080401b, P.I. G.G.28

Which condition does *not* prove that two triangles are congruent?

- [A] $ASA \cong ASA$ [B] $SAS \cong SAS$
[C] $SSA \cong SSA$ [D] $SSS \cong SSS$

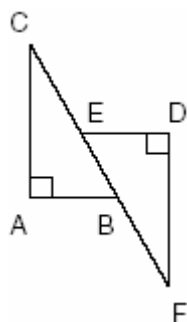
2. 010306b, P.I. G.G.28

Which statements could be used to prove that $\triangle ABC$ and $\triangle A'B'C'$ are congruent?

- [A] $\angle A \cong \angle A'$, $\angle B \cong \angle B'$, and $\angle C \cong \angle C'$
[B] $\angle A \cong \angle A'$, $\overline{AC} \cong \overline{A'C'}$, and $\overline{BC} \cong \overline{B'C'}$
[C] $\overline{AB} \cong \overline{A'B'}$, $\angle A \cong \angle A'$, and $\angle C \cong \angle C'$
[D] $\overline{AB} \cong \overline{A'B'}$, $\overline{BC} \cong \overline{B'C'}$, and $\angle A \cong \angle A'$

3. 060320b, P.I. G.G.28

In the accompanying diagram, $\overline{CA} \perp \overline{AB}$, $\overline{ED} \perp \overline{DF}$, $\overline{ED} \parallel \overline{AB}$, $\overline{CE} \cong \overline{BF}$, $\overline{AB} \cong \overline{ED}$ and $m\angle CAB = m\angle FDE = 90$.

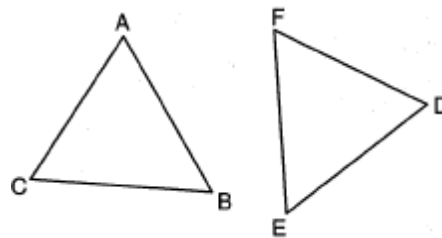


Which statement would *not* be used to prove $\triangle ABC \cong \triangle DEF$?

- [A] $SAS \cong SAS$ [B] $SSS \cong SSS$
[C] $AAS \cong AAS$ [D] $HL \cong HL$

4. 060902b, P.I. G.G.28

In the diagram of $\triangle ABC$ and $\triangle DEF$ below, $\overline{AB} \cong \overline{DE}$, $\angle A \cong \angle D$, and $\angle B \cong \angle E$.

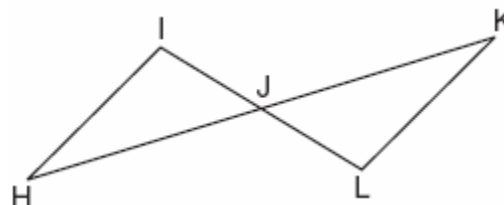


Which method can be used to prove $\triangle ABC \cong \triangle DEF$?

- [A] HL [B] SAS [C] SSS [D] ASA

5. 060420b, P.I. G.G.28

In the accompanying diagram, \overline{HK} bisects \overline{IL} and $\angle H \cong \angle K$.



What is the most direct method of proof that could be used to prove $\triangle HIJ \cong \triangle KLJ$?

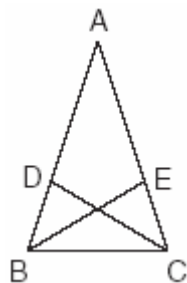
- [A] $SAS \cong SAS$ [B] $HL \cong HL$
[C] $AAS \cong AAS$ [D] $ASA \cong ASA$

NAME: _____

6. 060204b, P.I. G.G.28

In the accompanying diagram of $\triangle ABC$,

$$\overline{AB} \cong \overline{AC}, \overline{BD} = \frac{1}{3}\overline{BA}, \text{ and } \overline{CE} = \frac{1}{3}\overline{CA}.$$



Triangle EBC can be proved congruent to triangle DCB by

- [A] SAS \cong SAS [B] HL \cong HL
[C] SSS \cong SSS [D] ASA \cong ASA

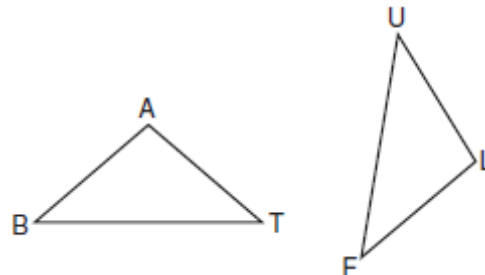
7. 080913ge, P.I. G.G.28

The diagonal \overline{AC} is drawn in parallelogram $ABCD$. Which method can *not* be used to prove that $\triangle ABC \cong \triangle CDA$?

- [A] ASA [B] SSS [C] SAS [D] SSA

8. 080907b, P.I. G.G.28

In the accompanying diagram of triangles BAT and FLU , $\angle B \cong \angle F$ and $\overline{BA} \cong \overline{FL}$.



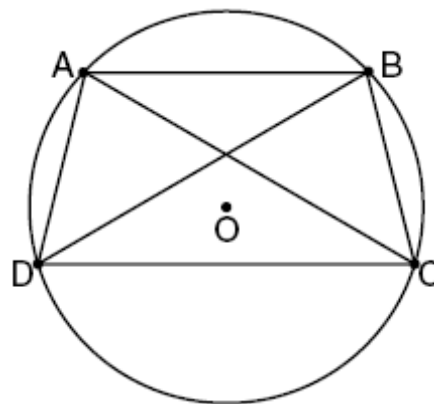
Which statement is needed to prove $\triangle BAT \cong \triangle FLU$?

- [A] $\angle A \cong \angle U$ [B] $\overline{BA} \parallel \overline{FL}$
[C] $\overline{AT} \cong \overline{LU}$ [D] $\angle A \cong \angle L$

9. fall0838ge, P.I. G.G.28

In the diagram below, quadrilateral $ABCD$ is inscribed in circle O , $\overline{AB} \parallel \overline{DC}$, and

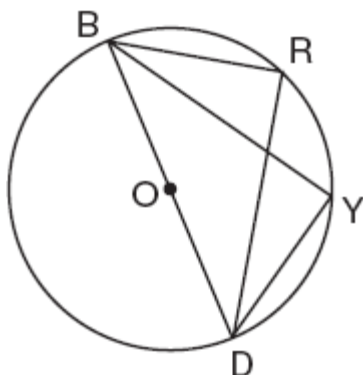
diagonals \overline{AC} and \overline{BD} are drawn. Prove that $\triangle ACD \cong \triangle BDC$.



NAME: _____

10. 010732b, P.I. G.G.28

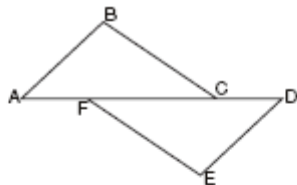
In the accompanying diagram, $m\widehat{BR} = 70$, $m\widehat{YD} = 70$, and \overline{BOD} is the diameter of circle O . Write an explanation or a proof that shows $\triangle RBD$ and $\triangle YDB$ are congruent.



11. 060229b, P.I. G.G.27

Complete the partial proof below for the accompanying diagram by providing reasons for steps 3, 6, 8, and 9.

Given: \overline{AFCD}
 $\overline{AB} \perp \overline{BC}$
 $\overline{DE} \perp \overline{EF}$
 $\overline{BC} \parallel \overline{FE}$
 $\overline{AB} \cong \overline{DE}$



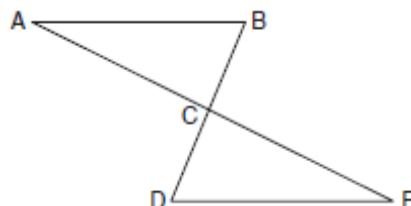
Prove: $\overline{AC} \cong \overline{FD}$

Statements	Reasons
1 \overline{AFCD}	1 Given
2 $\overline{AB} \perp \overline{BC}$, $\overline{DE} \perp \overline{EF}$	2 Given
3 $\angle B$ and $\angle E$ are right angles.	3 _____
4 $\angle B \cong \angle E$	4 All right angles are congruent.
5 $\overline{BC} \parallel \overline{FE}$	5 Given
6 $\angle BCA \cong \angle EFD$	6 _____
7 $\overline{AB} \cong \overline{DE}$	7 Given
8 $\triangle ABC \cong \triangle DEF$	8 _____
9 $\overline{AC} \cong \overline{FD}$	9 _____

12. 060938ge, P.I. G.G.27

Given: $\triangle ABC$ and $\triangle EDC$, C is the midpoint of \overline{BD} and \overline{AE}

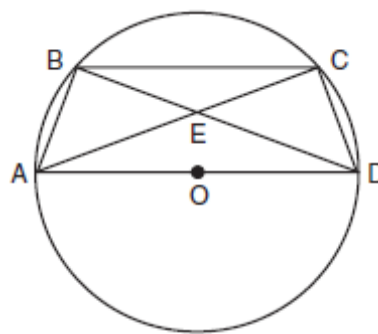
Prove: $\overline{AB} \parallel \overline{DE}$



13. 060934b, P.I. G.G.27

In the accompanying diagram of circle O , \overline{AD} is a diameter with \overline{AD} parallel to chord \overline{BC} , chords \overline{AB} and \overline{CD} are drawn, and chords \overline{BD} and \overline{AC} intersect at E .

Prove: $\overline{BE} \cong \overline{CE}$



[1] C _____

[2] C _____

[3] B _____

[4] D _____

[5] C _____

[6] A _____

[7] D _____

[8] D _____

[6] A complete and correct proof that includes a concluding statement is written.

[5] A proof is written that demonstrates a thorough understanding of the method of proof and contains no conceptual errors, but one statement or reason is missing or incorrect.

[4] A proof is written that demonstrates a good understanding of the method of proof and contains no conceptual errors, but two statements or reasons are missing or incorrect.

[3] A proof is written that demonstrates a good understanding of the method of proof, but one conceptual error is made.

[2] A proof is written that demonstrates an understanding of the method of proof, but one conceptual error is made and one statement or reason is missing or incorrect.

or [2] Some correct relevant statements about the proof are made, but three or four statements or reasons are missing or incorrect.

[1] Only one correct relevant statement and reason are written.

[0] The “given” and/or the “prove” statements are rewritten in the style of a formal proof, but no further correct relevant statements are written.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[9] obviously incorrect procedure.

[4] Appropriate work is shown to explain why or prove the triangles are congruent.

[3] An explanation is written that demonstrates a thorough understanding of the method of proof and contains no conceptual errors, but one reason is missing or is incorrect.

[2] An explanation is written that demonstrates a good understanding of the method of proof, but one conceptual error is made.

[1] Some correct relevant statements about the method of proof are made, but two or three statements or reasons are missing or are incorrect.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[10] incorrect procedure.

[4] The reasons for all four steps are correct, such as:

Step 3: Perpendicular line segments form right angles.

Step 6: If two parallel lines are cut by a transversal, the alternate interior angles are congruent.

Step 8: $AAS \cong AAS$.

Step 9: Corresponding parts of congruent triangles are congruent.

[3] The reasons for only three steps are correct.

[2] The reasons for only two steps are correct.

[1] The reason for only one step is correct.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[11] incorrect procedure.

- [6] A complete and correct proof that includes a concluding statement is written.
- [5] A proof is written that demonstrates a thorough understanding of the method of proof and contains no conceptual errors, but one statement or reason is missing or incorrect, or no concluding statement is written.
- or [5] $\angle A \cong \angle E$ or $\angle B \cong \angle D$ is proven, but no further correct work is shown.
- [4] A proof is written that demonstrates a good understanding of the method of proof and contains no conceptual errors, but two statements or reasons are missing or incorrect.
- or [4] $\triangle ABC \cong \triangle EDC$ is proven, but no further correct work is shown.
- [3] A proof is written that demonstrates a good understanding of the method of proof, but one conceptual error is made.
- [2] Some correct relevant statements about the proof are made, but three or four statements or reasons are missing or incorrect.
- [1] Only one correct statement and reason are written.
- [0] The given and/or the prove statements are rewritten in the style of a formal proof, but no further correct relevant statements are written.
- or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.
-
- [12]

- [6] A complete and correct proof that includes a conclusion is written.
- [5] A proof is written that demonstrates a thorough understanding of the method of proof and contains no conceptual errors, but one statement and/or reason is missing or is incorrect.
- or [5] $\triangle BEA \cong \triangle CED$ is proven or $\triangle BEC$ is proven to be isosceles, but no further correct work is shown.
- [4] A proof is written that demonstrates a good understanding of the method of proof, but two statements and/or reasons are missing or are incorrect.
- [3] A proof is written that demonstrates a good understanding of the method of proof, but one conceptual error is made.
- [2] Some correct relevant statements about the proof are made, but three or four statements and/or reasons are missing or are incorrect.
- or [2] A proof is written that demonstrates understanding of the method of proof, but one conceptual error is made, and one statement or reason is missing or is incorrect.
- [1] Only one correct relevant statement and reason are written.
- [0] The "given" and/or the "prove" statements are rewritten in the style of a formal proof, but no further correct relevant statements are written.
- or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.
-
- [13]