

Name:

Period:

For each section, imagine that you are considering an entirely new triangle. In other words, the given information in each section is for that section only.

Circle if the conditions are true for each number **Always**, **Sometimes**, or **Never**.

1. AD bisects $\angle CAB$. What do you know?

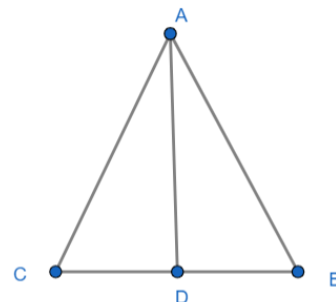
a. $\angle CAD \cong \angle BAD$ A S N

b. $\underline{CD} \cong \underline{DB}$ A S N

c. $\underline{AD} \perp \underline{CB}$ A S N

d. AD bisects $\underline{CBA}$ S N

e. $\angle CDA$ and $\angle BDA$ are right angles A S N



2. AD bisects $\underline{CB}$. What do you know?

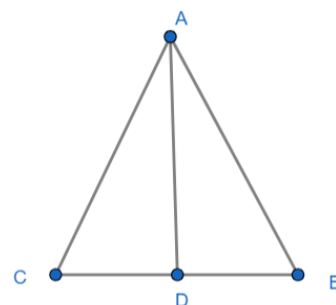
a. $\angle CAD \cong \angle BAD$ A S N

b. $\underline{CD} \cong \underline{DB}$ A S N

c. $\underline{AD} \perp \underline{CB}$ A S N

d. AD bisects $\underline{CBA}$ S N

e. $\angle CDA$ and $\angle BDA$ are right angles A S N



3. AD is perpendicular to $\underline{CB}$. What do you know?

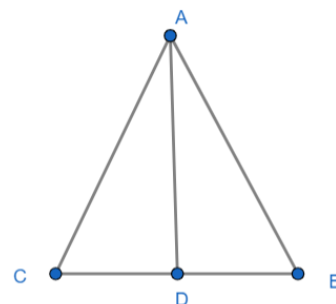
a. $\angle CAD \cong \angle BAD$ A S N

b. $\underline{CD} \cong \underline{DB}$ A S N

c. $\underline{AD} \perp \underline{CB}$ A S N

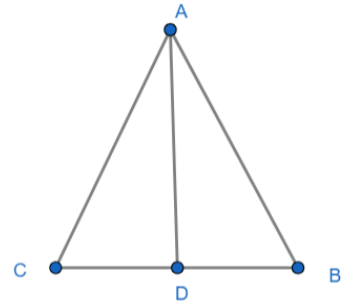
d. AD bisects $\underline{CBA}$ S N

e. $\angle CDA$ and $\angle BDA$ are right angles A S N



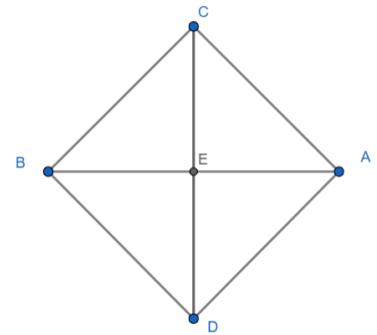
4. AD is a perpendicular bisector of CB. What do you know?

- | | | | |
|---|---|---|---|
| a. $\angle CAD \cong \angle BAD$ | A | S | N |
| b. $\underline{CD} \cong \underline{DB}$ | A | S | N |
| c. $\underline{AD} \perp \underline{CB}$ | A | S | N |
| d. <u>AD</u> bisects <u>CBA</u> | S | N | |
| e. $\angle CDA$ and $\angle BDA$ are right angles | A | S | N |



5. CD is a perpendicular bisector of AB. What do you know?

- | | | | |
|--|---|---|---|
| a. $\underline{AC} \cong \underline{AD}$ | A | S | N |
| b. $\underline{BC} \cong \underline{BD}$ | A | S | N |
| c. $\underline{AC} \cong \underline{BC}$ | A | S | N |
| d. $\underline{AD} \cong \underline{BD}$ | A | S | N |
| e. $\underline{BE} \cong \underline{EA}$ | A | S | N |
| f. $\underline{CE} \cong \underline{DE}$ | A | S | N |
| g. Name the angles that are 90 degrees. | | | |



6. Open the GeoGebra book [Geometry Misconceptions Buster](#). Drag **EVERY POINT** in each activity. **Go back and make any corrections needed on this sheet.**

7. **Check** your observations with the key in Canvas. Use a highlighter to mark the correct answers on your own sheet.

Things to keep in mind:

You can only bisect a segment or an angle. You cannot bisect a line or a triangle.