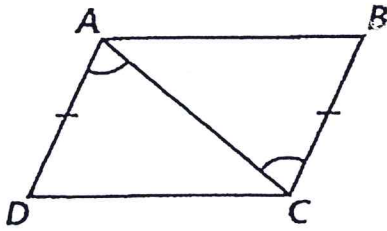
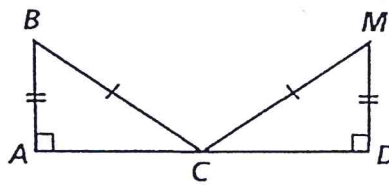


20-22: By what method can the triangles be proven congruent?
Write a congruent statement for the triangles.

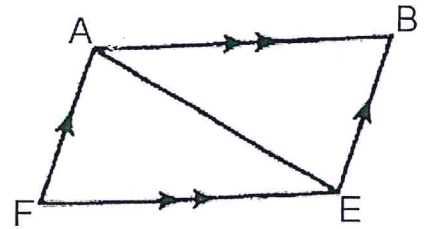
20.



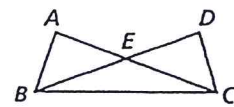
21.



22.



23. Reorder the reasons of the following proof to match the correct statements.



Given: $\overline{AB} \cong \overline{DC}$
 $\angle ABC \cong \angle DCB$
Prove: $\overline{AC} \cong \overline{DB}$

Statements

1. $\overline{AB} \cong \overline{DC}$
2. $\angle ABC \cong \angle DCB$
3. $\overline{BC} \cong \overline{CB}$
4. $\triangle ABC \cong \triangle DCB$
5. $\overline{AC} \cong \overline{DB}$

Reasons

- a. SAS Postulate
- b. Reflexive Property
- c. Given
- d. CPCTC
- e. Given

24. The vertex angle of an isosceles triangle is three times the measure of a base angle. What is the measure of the vertex angle?

25. Two sides of a triangle are 4 cm and 9 cm. What are possible lengths for the third side?

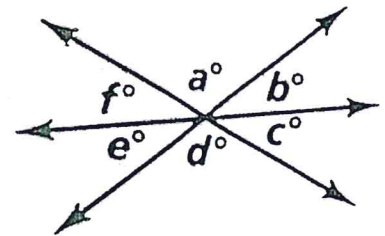
26. Can a triangle be formed with side lengths that are 4, 9, and 12? Explain.

27. If the perimeter of isosceles triangle XYZ is 40 and $XZ=16$, what are the possible values for YZ?

28. Give the diagram at the right, which of the following must be true?

- I. $e+f=b+c$
- II. $f+c=a+d$
- III. $e+a+c=f+b+d$

A. I only B. I and III C. I and II D. I, II, and III



29. $\triangle ABC$ is an acute triangle. $\overline{BD} \perp \overline{AC}$ and \overline{BD} bisects $\angle ABC$. $m\angle CBD=2x$, and $m\angle ABD=4x-30$. Draw a figure and find the measure of exterior angle BCF.

Build-your-own notes - points of concurrency

Add to review
p 365:42
pp 196-7:8-18

