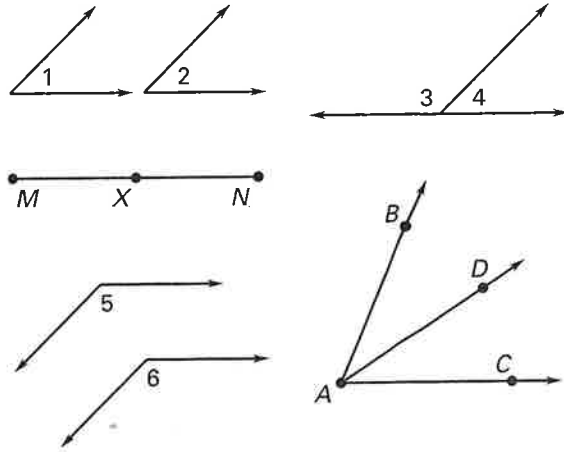


Practice B

For use with pages 136–141

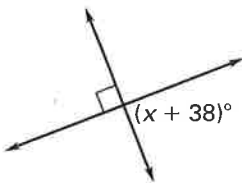
State the reason for the conclusion.

- Given: $m\angle 1 = m\angle 2$
Conclusion: $\angle 1 \cong \angle 2$
- Given: $\angle 3$ and $\angle 4$ are linear pairs.
Conclusion: $\angle 3$ and $\angle 4$ are supplementary.
- Given: $\angle 5 \cong \angle 6$
Conclusion: $\angle 6 \cong \angle 5$
- Given: X is the midpoint of \overline{MN} .
Conclusion: $\overline{MX} \cong \overline{NX}$
- Given: \overrightarrow{AD} bisects $\angle BAC$.
Conclusion: $\angle BAD \cong \angle DAC$

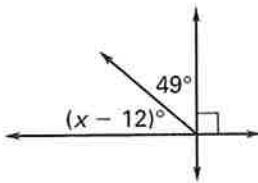


Find the value of x .

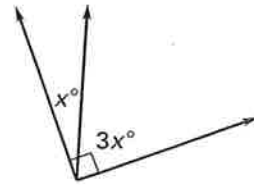
6.



7.



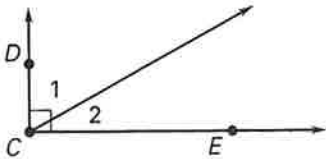
8.



9. Complete the two-column proof of Theorem 3.2.

Given: $\overrightarrow{CD} \perp \overrightarrow{CE}$

Prove: $\angle 1$ and $\angle 2$ are complementary.



Statements

- $\overrightarrow{CD} \perp \overrightarrow{CE}$
- $\angle DCE$ is a right \angle .
- _____
- $m\angle DCE = m\angle 1 + m\angle 2$
- _____
- $\angle 1$ and $\angle 2$ are complementary.

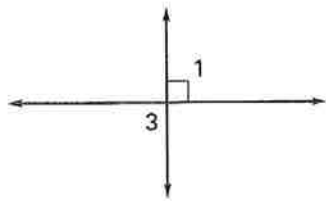
Reasons

- _____
- _____
- Def. of right \angle
- _____
- Substitution
- _____

10. Complete the flow proof of a portion of Theorem 3.3.

Given: $\angle 1$ is a right angle.

Prove: $\angle 3$ is a right angle.



$\angle 1$ and $\angle 3$ are vertical \angle s.

a. _____

$\angle 1 \cong \angle 3$

b. _____

$m\angle 1 = m\angle 3$

c. _____

$\angle 1$ is a right \angle .

d. _____

$m\angle 1 = 90^\circ$

e. _____

$m\angle 3 = 90^\circ$

f. _____

$\angle 3$ is a right \angle .

g. _____