Name _____ Class _____ Date _____

# 1-5 Standardized Test Prep

Exploring Angle Pairs

## Multiple Choice

**For Exercises 1–6, choose the correct letter.**

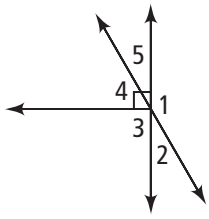
**1.** $\angle CDE$ and $\angle FDE$ are supplementary, $m\angle CDE = 3x + 10$, and $m\angle FDE = 6x + 8$. What is $m\angle FDE$?

(A) 18 (B) 64 (C) 108 (D) 116

**2.** $\overrightarrow{SV}$ bisects $\angle RST$. If $m\angle RSV = 64$, what is $m\angle RST$?

(F) 32 (G) 64 (H) 116 (I) 128

**Use the diagram at the right for Exercises 3 and 4.**




**3.** Which of the following pairs are vertical angles?

(A) $\angle 1$ and $\angle 2$ (C) $\angle 2$ and $\angle 5$

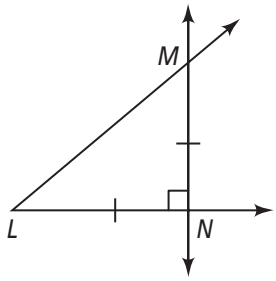
(B) $\angle 2$ and $\angle 3$ (D) $\angle 4$ and $\angle 5$

**4.** Which of the following pairs are supplementary?

(F) $\angle 1$ and $\angle 2$ (H) $\angle 2$ and $\angle 3$

(G) $\angle 2$ and $\angle 5$ (I) $\angle 4$ and $\angle 5$

**Use the diagram at the right for Exercises 5 and 6.**




**5.** Which of the following conclusions can you make from the information in the diagram?

(A) $\angle MNL \cong \angle LMN$ (C) $\overline{LM} \cong \overline{MN}$

(B) $m\angle MNL = 2m\angle LMN$ (D) $LM = 2MN$

**6.** Which of the following conclusions cannot be made from the information in the diagram?

(F) $\overline{MN} \cong \overline{LN}$ (H) $\angle NLM$ is supplementary to $\angle NML$.

(G) $\angle NLM \cong \angle NML$ (I) $\angle NLM$ is complementary to $\angle NML$.

## Short Response

**7.** $\angle ABC$ and $\angle DBE$ are vertical angles, $m\angle ABC = 3x + 20$, and $m\angle DBE = 4x - 10$. Write and solve an equation to find $m\angle ABC$ and $m\angle DBE$.