

2-6 Standardized Test Prep

Proving Angles Congruent

Multiple Choice

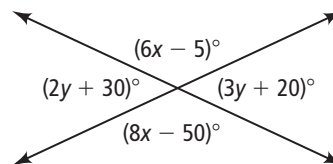
For Exercises 1–5, choose the correct letter.

- $\angle A$ and $\angle B$ are supplementary, and $\angle A$ and $\angle C$ are supplementary. Which conclusion is valid?
 - $\angle B$ and $\angle C$ are supplementary.
 - $\angle B$ and $\angle C$ are complementary.
 - $\angle B$ and $\angle C$ are acute.
 - $\angle B$ and $\angle C$ are congruent.
- The measure of $\angle B$ is one-half the measure of its complement. What is the measure of $\angle B$?
 - 30
 - 45
 - 60
 - 90
- $\angle T$ and $\angle R$ are vertical angles. $m\angle T = 3x + 36$ and $m\angle R = 6x - 9$. What is the measure of $\angle T$?
 - 15
 - 81
 - 87
 - 99

Use the figure at the right for Exercises 4 and 5.

4. What is the value of x ?

- 8.9
- 16.8
- 22.5
- 27.5



5. What is the value of y ?

- 10
- 2
- 2
- 10

6. $\angle A$ and $\angle B$ are complementary angles. If $m\angle A = 5x - 2$, and $m\angle B = 3x + 4$, what is the value of x ?

- 3
- 6
- 11
- 22.25

Short Response

7. In the figure at the right, if $m\angle 1 = 37$, and $\angle 1 \cong \angle 3$, what is $m\angle 4$? Explain.

