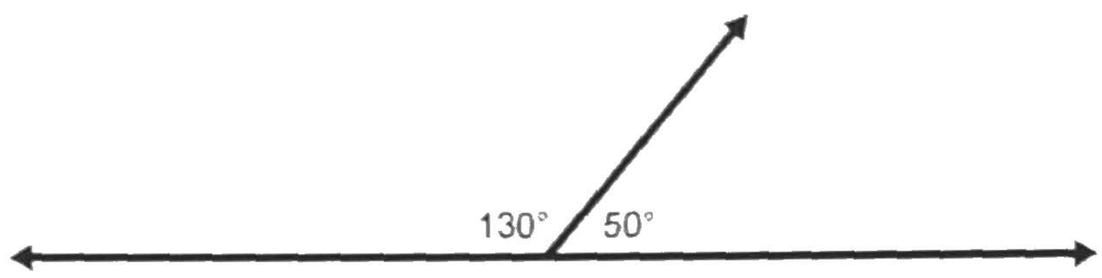
Understand Angle Relationships: Play

Number of Questions: 15

Questions 1–13 are selected-response questions. Write the letters of the correct answers on the answer sheet.

1. What term describes the pair of angles?



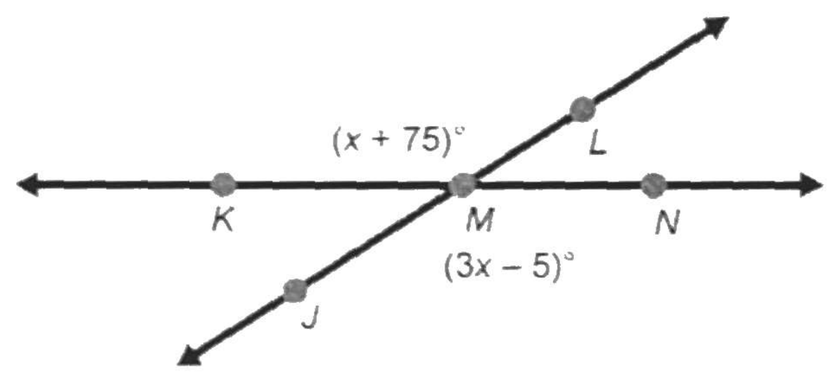
A. vertical

B. complementary

C. parallel

D. supplementary

2. What is $m\angle LMN$?



A. 65°

B. 80°

C. 115°

D. 180°

3. Angles A and B are complementary. If $m\angle A$ is 18°, what is $m\angle B$?

A. 18° **B.** 32° **C.** 72° **D.** 162°

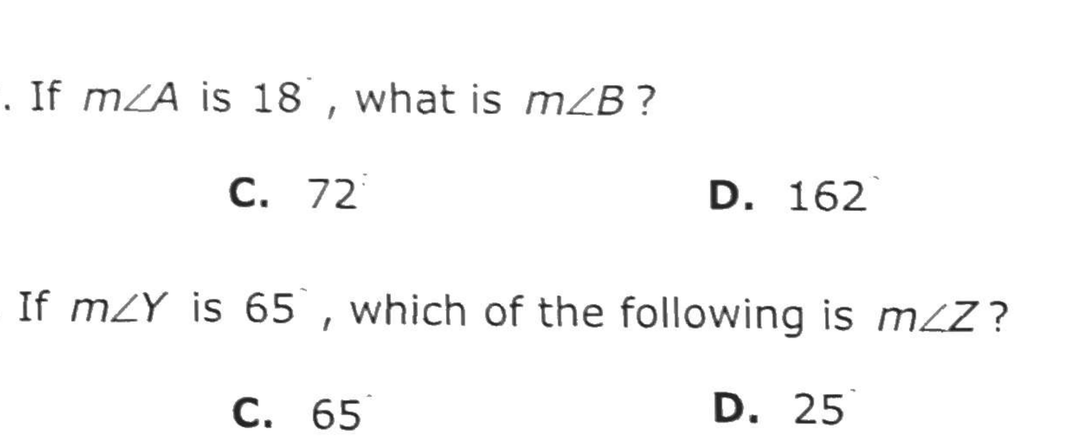
4. Angles Y and Z are supplementary. If $m\angle Y$ is 65°, which of the following is $m\angle Z$?

A. 125° **B.** 115° **C.** 65° **D.** 25°

5. If $\angle R$ and $\angle S$ are supplementary, $m\angle R = 2x^\circ$, and $m\angle S = 18x^\circ$, what is the measure of the smaller angle?

A. 9° **B.** 18° **C.** 20° **D.** 36°

6. Which term describes the pair of labeled angles?



A. complementary

B. vertical

C. supplementary

D. adjacent

7. If $\angle F$ and $\angle G$ are complementary, $m\angle F = 5x^\circ$, and $m\angle G = x^\circ$, what is the value of x?

A. 90 **B.** 75 **C.** 15 **D.** 5

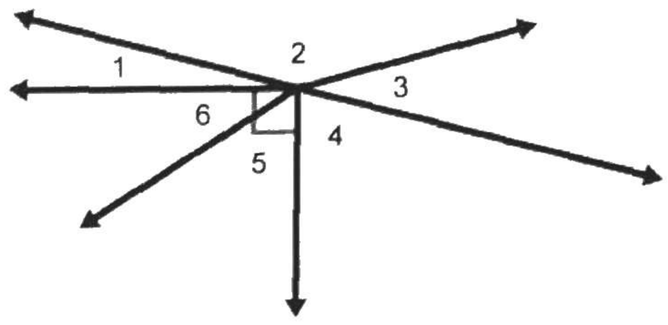
8. If $\angle M$ and $\angle P$ are supplementary, $m\angle M = 6x + 10$, and $m\angle P = 15x + 23$, which of the following is the measure of $\angle M$?

A. 7° **B.** 52° **C.** 128° **D.** 147°

9. Which of the following pairs of angles is both adjacent and supplementary?

A. $\angle 5$ and $\angle 6$ **B.** $\angle 1$ and $\angle 2$

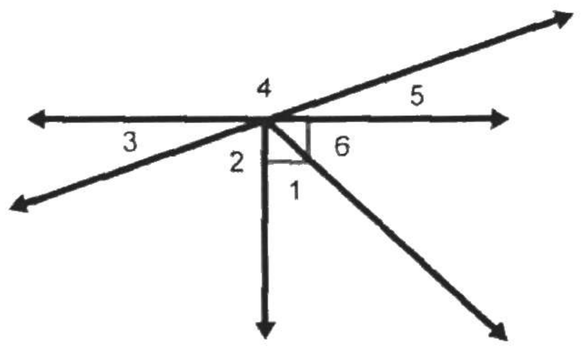
C. $\angle 1$ and $\angle 5$ **D.** $\angle 2$ and $\angle 3$



10. Which of the following pairs of angles is both adjacent and complementary?

A. $\angle 1$ and $\angle 6$ **B.** $\angle 3$ and $\angle 5$

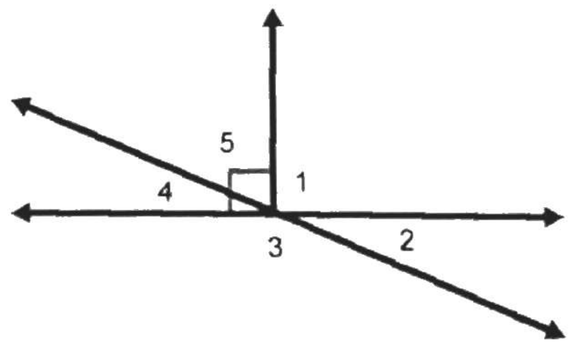
C. $\angle 4$ and $\angle 5$ **D.** $\angle 1$ and $\angle 4$



11. Which pair of angles listed below are adjacent?

A. $\angle 1$ and $\angle 3$ **B.** $\angle 2$ and $\angle 4$

C. $\angle 1$ and $\angle 2$ **D.** $\angle 2$ and $\angle 5$



12. Given: $m\angle A = 24^\circ$

$\angle B$ and $\angle A$ are supplementary.

$\angle C$ and $\angle A$ are complementary.

$\angle D$ and $\angle C$ are complementary.

Find: $m\angle B$, $m\angle C$, and $m\angle D$

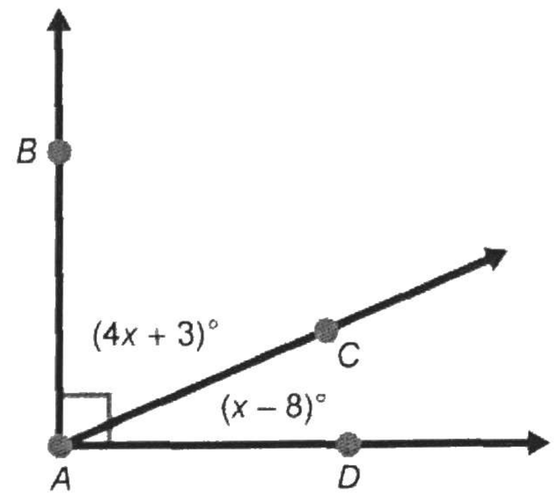
A. 156°, 66°, and 24° **B.** 156°, 64°, and 28°

C. 66°, 114°, and 66° **D.** 156°, 24°, and 28°

13. Which of the following is $m\angle CAD$?

A. 79° **B.** 19°

C. 17° **D.** 11°

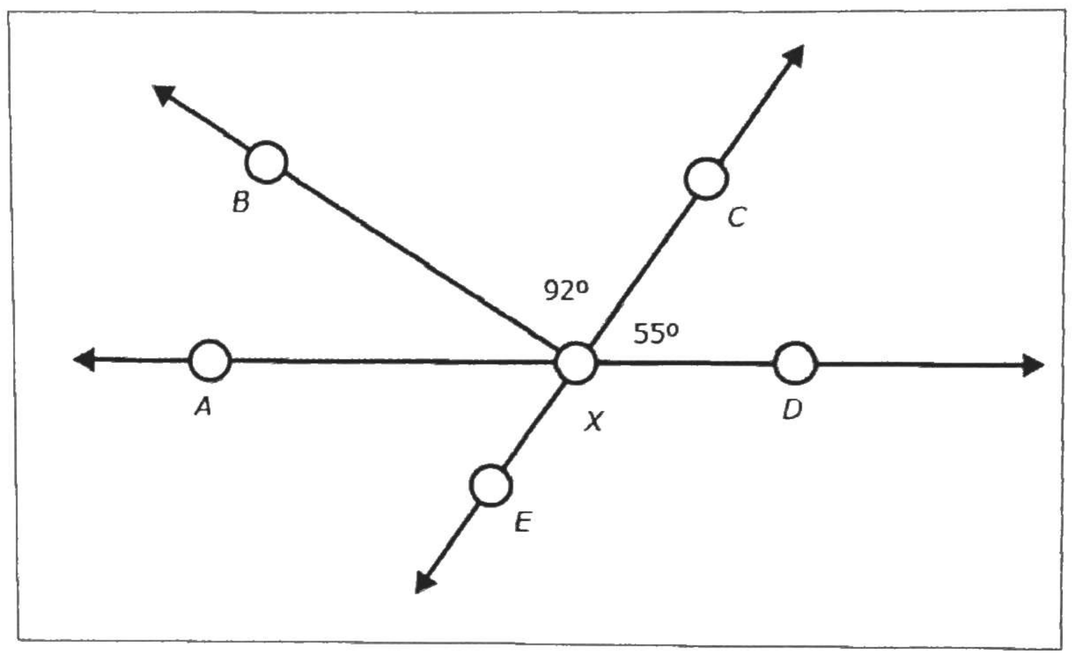


Questions 14 and 15 are fill-in-the-blank questions. Write the correct answers in the spaces provided on the answer sheet.

14. In the figure, point X lies on lines $\overleftrightarrow{AD}$ and $\overleftrightarrow{CE}$.

What is the measure of $\angle AXB$?

$m\angle AXB =$ _____°



15. Select the correct angle measures that are missing from the figure.
Answers may be used more than once.

A. 106° **B.** 84° **C.** 93° **D.** 90° **E.** 96°

(a) $x =$ _____

(b) $y =$ _____

(c) $z =$ _____