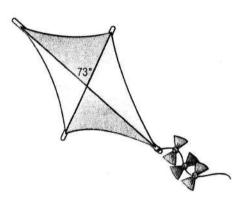
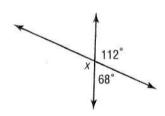
Vertical, Supplementary and Complementary Angles

- 2 Angles 1 and 2 are adjacent angles on a line. What is the sum of the measures of the angles?
 - A) 30°
 - B) 60°
 - C) 90°
 - D) 180°
- **3** A kite is built by crossing and joining two sticks. If one of the angles formed at the intersection of these sticks measures 73°, what is the measure of the opposite angle?

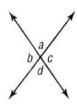


- A) 17°
- B) 37°
- C) 73°
- D) 107°
- **4** Using the figure, find *x*.

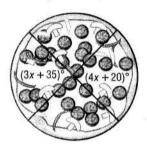


- A) 22°
- B) 44°
- C) 68°
- D) 112°

5 In the figure, if $m \angle a = 40^\circ$, which of the following is true?

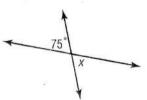


- A) $m \angle b = 40^{\circ}$
- B) $m \angle c = 40^{\circ}$
- C) $m \angle d = 40^{\circ}$
- D) $m \angle db = 140^{\circ}$
- 6 Beth used a pizza cutter to make 2 intersecting cuts and divide a pizza into 4 slices. She expressed the angle of one slice as $(4x + 20)^{\circ}$ and the one opposite as $(3x + 35)^{\circ}$.



What was the measure of each angle?

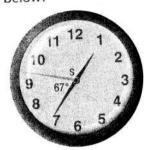
- A) 15°
- B) 45°
- C) 60°
- D) 80°
- 7 If $m \angle x = (2y + 25)^\circ$, find the value of y.



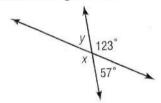
- A) 21.5
- B) 25
- C) 68
- D) 75

MULTIPLE CHOICE

- 2 If $m \angle a = 86^\circ$, what is the measure of its complement?
 - A) 4°
 - B) 40°
 - C) 68°
 - D) 94°
- **3** What is the measure of angle s on the clock below?



- A) 23°
- B) 67°
- C) 93°
- D) 113°
- **4** Based on the drawing below, which of the following statements is true?

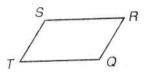


- A) $\angle x$ and the 123° angle are supplementary.
- B) $\angle y$ and the 123° angle are supplementary.
- C) $\angle x$ and the 57° angle are complementary.
- D) $\angle y$ and the 57° angle are complementary.
 - 5 If the triangle shown is a right triangle, what is the value of x?



- A) 22
- B) 44
- C) 46
- D) 88
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- **6** Suppose $m \angle r = (4x + 11)^\circ$ and $m \angle s = (x + 14)^\circ$. If angles r and s are supplementary, what is the measure of the smaller angle?
 - A) 31°
 - B) 42°
 - C) 45°
 - D) 135°
- 7 In parallelogram SRQT, angles R and Q are supplementary. If $m\angle R = (3x + 22)^\circ$ and $m\angle Q = (5x 2)^\circ$, what is the measure of angle Q?



- A) 20°
- B) 70°
- C) 82°
- D) 98°
- **8** Complementary angles m and n have measures of $(3y + 21)^{\circ}$ and $(4y + 20)^{\circ}$. What is the value of the larger angle?
 - A) 7°
 - B) 42°
 - C) 48°
 - D) 49°
- **9** The measures of two angles are $4x^{\circ}$ and $(2x + 12)^{\circ}$. What must be true if x = 13?
 - A) Both angles are acute and complementary.
 - B) Both angles are obtuse and supplementary.
 - C) One angle is acute, one is obtuse, and they are complementary.
 - D) One angle is acute, one is obtuse, and they are supplementary.