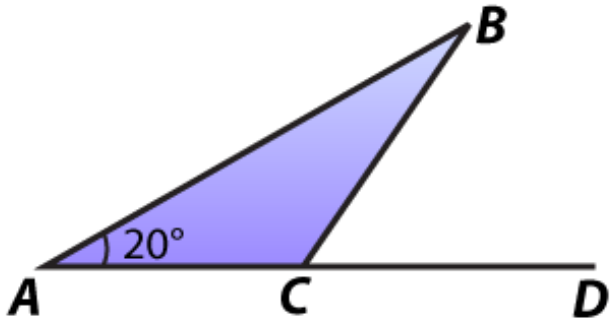
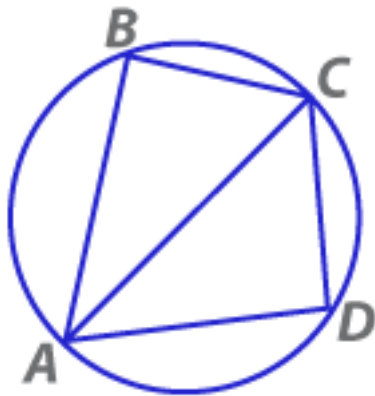


Directions: Please choose the best answer choice for each of the following questions.

1. Given that $m \angle BAC = 20^\circ$, which of the following statements will prove $\triangle ABC$ is isosceles?

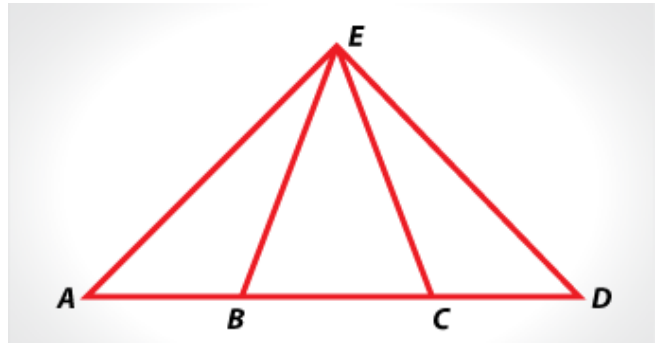


- A. $m \angle ABC + m \angle BCA + 20^\circ = 180^\circ$
 B. $m \angle ABC + 20^\circ = m \angle BCD$
 C. $m \angle BCD = 40^\circ$
 D. $m \angle ACB + m \angle BCD = 180^\circ$
2. Use the figure to determine which of the following statements is sufficient to prove that $\triangle ABC$ is a right triangle?



- A. $m \angle ADC = 90^\circ$
 B. $m \angle BAD = 90^\circ$
 C. $m \angle BCD = 90^\circ$
 D. $m \angle ACB = 60^\circ$

3. Use the figure below to determine which of the following conditions is sufficient to prove that $\triangle BEC$ is isosceles?



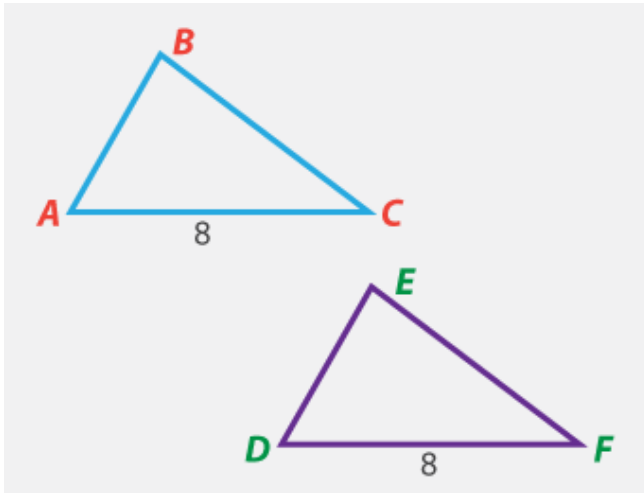
- A. $AE = DE$
 B. $AB = CD$
 C. $m \angle EAB = m \angle EDC$
 D. $m \angle EBA = m \angle ECD$
4. Which of the following statements will prove that parallelogram $ABCD$ is a rectangle?



- A. $m \angle ABC + m \angle BCD = 180^\circ$
 B. $m \angle ABC + m \angle CDA = 180^\circ$
 C. $m \angle BCD + m \angle CDA = 180^\circ$
 D. $m \angle ;CDA + m \angle DAB = 180^\circ$

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5. Which of the following statements will prove that triangle ABC is congruent to triangle DEF ?



- A. $AB = 4, DE = 4, m \angle BAC = m \angle EDF$
- B. $BC = 6, EF = 6, m \angle BAC = m \angle EDF$
- C. $AB = 4, DE = 4, m \angle ABC = m \angle DEF$
- D. $BC = 6, EF = 6, m \angle ABC = m \angle DEF$

Stop! You have finished this exam.