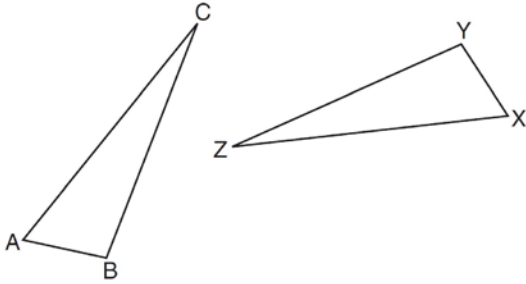


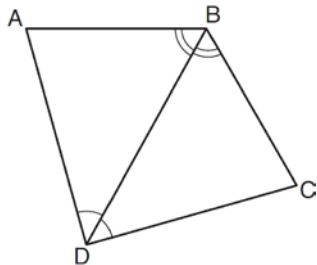
G.SRT.B.5: Triangle Congruency

- 1 In the diagram below, $\triangle ABC \cong \triangle XYZ$.



Which statement must be true?

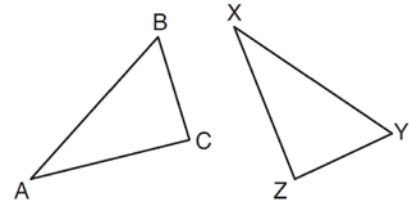
- 1) $\angle C \cong \angle Y$
 - 2) $\angle A \cong \angle X$
 - 3) $\overline{AC} \cong \overline{YZ}$
 - 4) $\overline{CB} \cong \overline{XZ}$
- 2 The diagram below shows a pair of congruent triangles, with $\angle ADB \cong \angle CDB$ and $\angle ABD \cong \angle CBD$.



Which statement must be true?

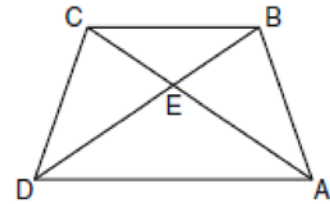
- 1) $\angle ADB \cong \angle CBD$
- 2) $\angle ABC \cong \angle ADC$
- 3) $\overline{AB} \cong \overline{CD}$
- 4) $\overline{AD} \cong \overline{CD}$

- 3 In the diagram below, $\triangle ABC \cong \triangle XYZ$.



Which two statements identify corresponding congruent parts for these triangles?

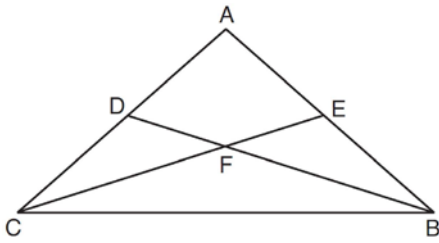
- 1) $\overline{AB} \cong \overline{XY}$ and $\angle C \cong \angle Y$
 - 2) $\overline{AB} \cong \overline{YZ}$ and $\angle C \cong \angle X$
 - 3) $\overline{BC} \cong \overline{XY}$ and $\angle A \cong \angle Y$
 - 4) $\overline{BC} \cong \overline{YZ}$ and $\angle A \cong \angle X$
- 4 In the diagram of trapezoid $ABCD$ below, diagonals \overline{AC} and \overline{BD} intersect at E and $\triangle ABC \cong \triangle DCB$.



Which statement is true based on the given information?

- 1) $\overline{AC} \cong \overline{BC}$
 - 2) $\overline{CD} \cong \overline{AD}$
 - 3) $\angle CDE \cong \angle BAD$
 - 4) $\angle CDB \cong \angle BAC$
- 5 If $\triangle JKL \cong \triangle MNO$, which statement is always true?
- 1) $\angle KLJ \cong \angle NMO$
 - 2) $\angle KJL \cong \angle MON$
 - 3) $\overline{JL} \cong \overline{MO}$
 - 4) $\overline{JK} \cong \overline{ON}$

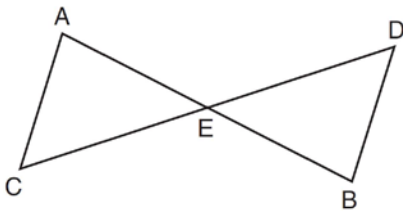
- 6 In $\triangle ABC$ shown below with \overline{ADC} , \overline{AEB} , \overline{CFE} , and \overline{BFD} , $\triangle ACE \cong \triangle ABD$.



Which statement must be true?

- 1) $\angle ACF \cong \angle BCF$
- 2) $\angle DAE \cong \angle DFE$
- 3) $\angle BCD \cong \angle ABD$
- 4) $\angle AEF \cong \angle ADF$

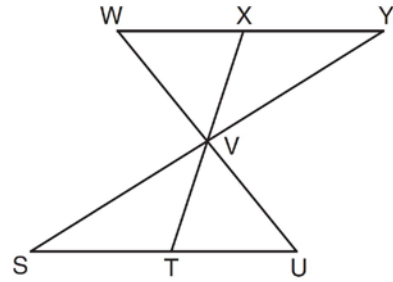
- 7 In the diagram below, $\triangle AEC \cong \triangle BED$.



Which statement is *not* always true?

- 1) $\overline{AC} \cong \overline{BD}$
- 2) $\overline{CE} \cong \overline{DE}$
- 3) $\angle EAC \cong \angle EBD$
- 4) $\angle ACE \cong \angle DBE$

- 8 In the diagram below, $\triangle XYV \cong \triangle TSV$.



Which statement can *not* be proven?

- 1) $\angle XVY \cong \angle TVS$
- 2) $\angle VYX \cong \angle VUT$
- 3) $\overline{XY} \cong \overline{TS}$
- 4) $\overline{YV} \cong \overline{SV}$

- 9 If $\triangle MNP \cong \triangle VWX$ and \overline{PM} is the shortest side of $\triangle MNP$, what is the shortest side of $\triangle VWX$?

- 1) \overline{XV}
- 2) \overline{WX}
- 3) \overline{VW}
- 4) \overline{NP}

- 10 If $\triangle ABC \cong \triangle JKL \cong \triangle RST$, then \overline{BC} must be congruent to

- 1) \overline{JL}
- 2) \overline{JK}
- 3) \overline{ST}
- 4) \overline{RS}

- 11 Which statement is *not* always true when $\triangle ABC \cong \triangle XYZ$.

- 1) $\overline{BC} \cong \overline{YZ}$
- 2) $\overline{CA} \cong \overline{XY}$
- 3) $\angle CAB \cong \angle ZXY$
- 4) $\angle BCA \cong \angle YZX$

- 12 Given $\triangle ABC \cong \triangle DEF$, which statement is *not* always true?

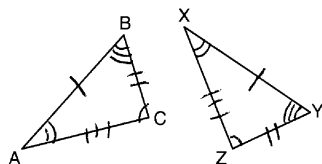
- 1) $\overline{BC} \cong \overline{DF}$
- 2) $m\angle A = m\angle D$
- 3) area of $\triangle ABC =$ area of $\triangle DEF$
- 4) perimeter of $\triangle ABC =$ perimeter of $\triangle DEF$

G.SRT.B.5: Triangle Congruency**Answer Section**

1 ANS: 2 REF: 081102ge

2 ANS: 4 REF: 011216ge

3 ANS: 4



REF: 081001ge

4 ANS: 4 REF: 080905ge

5 ANS: 3 REF: 061102ge

6 ANS: 4 REF: 081501ge

7 ANS: 4 REF: 061410ge

8 ANS: 2

(1) is true because of vertical angles. (3) and (4) are true because CPCTC.

REF: 061302ge

9 ANS: 1 REF: 011301ge

10 ANS: 3 REF: 081309ge

11 ANS: 2 REF: 011624ge

12 ANS: 1 REF: 011703geo