

### G.CO.C.9: Line and Angle Proofs

- 1 In the diagram below of  $\overline{ABCD}$ ,  $\overline{AC} \cong \overline{BD}$ .



Using this information, it could be proven that

- |              |                   |
|--------------|-------------------|
| 1) $BC = AB$ | 3) $AD - BC = CD$ |
| 2) $AB = CD$ | 4) $AB + CD = AD$ |

- 2 In the diagram of  $\overline{WXYZ}$  below,  $\overline{WY} \cong \overline{XZ}$ .



Which reasons can be used to prove  $\overline{WX} \cong \overline{YZ}$ ?

- |   |  |
|---|--|
| 1) reflexive property and addition postulate    | 3) transitive property and addition postulate    |
| 2) reflexive property and subtraction postulate | 4) transitive property and subtraction postulate |
- 3 When writing a geometric proof, which angle relationship could be used alone to justify that two angles are congruent?
- |                          |                    |
|--------------------------|--------------------|
| 1) supplementary angles  | 3) adjacent angles |
| 2) linear pair of angles | 4) vertical angles |

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**Answer Section**

1 ANS: 2

$$AC = BD$$

$$AC - BC = BD - BC$$

$$AB = CD$$

REF: 061206ge

2 ANS: 2

REF: 061427ge

3 ANS: 4

REF: 011108ge