

## Workbook

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#1 a)  $\overline{BC} \cong \overline{EF}$     b)  $\angle B \cong \angle E$     c)  $\overline{AB} \cong \overline{DE}$

#2 The angle is not between two congruent corresponding sides.

#3

Statement	Justification
1. $\angle AMC \cong \angle BMD$	<i>Vertically opposite angles</i>
2. $\overline{MA} \cong \overline{MB}$	<i>M is the midpoint of <math>\overline{AB}</math> (hypothesis)</i>
3. $\overline{MC} \cong \overline{MD}$	<i>M is the midpoint of <math>\overline{CD}</math> (hypothesis)</i>
4. $\triangle AMC \cong \triangle BMD$	<i>SAS</i>

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#5

Statement	Justification
1. $\angle ABC \cong \angle ACB$	<i>The angles at the base of an isosceles triangles are congruent</i>
2. $\angle ABD \cong \angle ACE$	<i>The supplementary angles to two congruent angles are congruent</i>
3. $\overline{AB} \cong \overline{AC}$	<i>The sides meeting at the main vertex of an isosceles triangles are congruent</i>
4. $\overline{BD} \cong \overline{CE}$	<i>Hypothesis (given)</i>
5. $\triangle ABD \cong \triangle ACE$	<i>SAS</i>

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#7 a)  $\angle B \cong \angle E$   
 b)  $\overline{BC} \cong \overline{EF}$   
 c)  $\angle B \cong \angle E$

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#8 The side is not between two congruent corresponding angles.

#9

Statement	Justification
1. $\angle CAB \cong \angle ABD$	<i>Alternate interior angles</i>
2. $\overline{AM} \cong \overline{MB}$	<i>M is the midpoint of <math>\overline{AB}</math> (hypothesis)</i>
3. $\angle AMC \cong \angle BMD$	<i>Vertically opposite angles</i>
4. $\triangle AMC \cong \triangle BMD$	<i>ASA</i>