

Mathematics

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(Chapter – 7) (Congruence of Triangles)

(Class – VII)

Exercise 7.1

Question 1:

Complete the following statements:

- (a) Two line segments are congruent if _____.
- (b) Among two congruent angles, one has a measure of 70° , the measure of other angle is _____.
- (c) When we write $\angle A = \angle B$, we actually mean _____.

Answer 1:

- (a) they have the same length
- (b) 70°
- (c) $m\angle A = m\angle B$

Question 2:

Give any two real time examples for congruent shapes.

Answer 2:

(i) Two footballs

(ii) Two teacher's tables

Question 3:

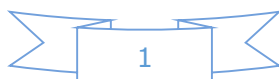
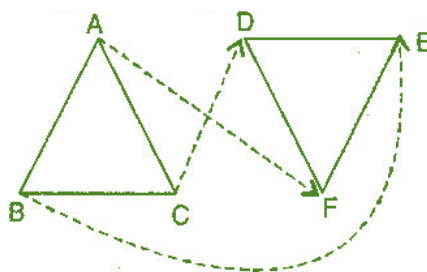
If $\triangle ABC \cong \triangle FED$ under the correspondence $ABC \leftrightarrow FED$, write all the corresponding congruent parts of the triangles.

Answer 3:

Given: $\triangle ABC \cong \triangle FED$.

The corresponding congruent parts of the triangles are:

- (i) $\angle A \leftrightarrow \angle F$
- (ii) $\angle B \leftrightarrow \angle E$
- (iii) $\angle C \leftrightarrow \angle D$
- (iv) $\overline{AB} \leftrightarrow \overline{FE}$
- (v) $\overline{BC} \leftrightarrow \overline{ED}$
- (vi) $\overline{AC} \leftrightarrow \overline{FD}$



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Question 4:

If $\triangle DEF \cong \triangle BCA$, write the part(s) of $\triangle BCA$ that correspond to:

- (i) $\angle E$
- (ii) \overline{EF}
- (iii) $\angle F$
- (iv) \overline{DF}



Answer 4:

Given: $\triangle DEF \cong \triangle BCA$.

- (i) $\angle E \leftrightarrow \angle C$
- (ii) $\overline{EF} \leftrightarrow \overline{CA}$
- (iii) $\angle F \leftrightarrow \angle A$
- (iv) $\overline{DF} \leftrightarrow \overline{BA}$

