

MATHEMATICS

Class-7th

Chapter-7

Congruence of
Triangles

Solution of
Exercise-7.1

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Q.1. Sol. (a) Two line segments are congruent if they have the same length.

(b) Among two congruent angles, one has a measure 70° , the measure of the other angle is 70° .

(c) When we write $\angle A = \angle B$ we actually mean $m\angle A = m\angle B$.

Q.2. Sol.

(i) Two stamps used are congruent to one another.

(ii) Two blades are congruent to one another.

Q.3. Sol. If $\triangle ABC \cong \triangle FED$ under the

correspondence $ABC \leftrightarrow FED$ it follows that congruent parts of congruent triangles are equal.

Therefore, all the corresponding congruent parts of the triangles

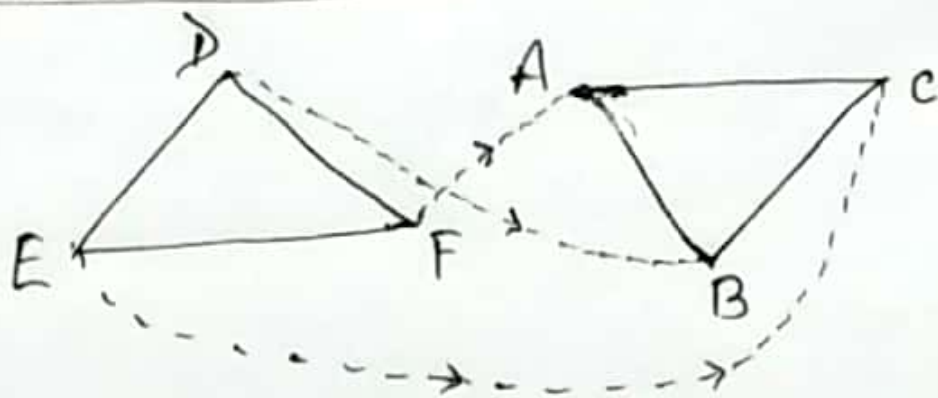
are,

$$\underline{AB = FE}, \underline{BC = ED} \text{ and } \underline{AC = FD}.$$

$$\underline{\angle A = \angle F}, \underline{\angle B = \angle E} \text{ and } \underline{\angle C = \angle D}.$$

Q.4. sol. $\triangle DEF \cong \triangle BCA$. Therefore the correspondence is

$$\underline{DEF \leftrightarrow BCA}$$



This means,

$$\underline{D \leftrightarrow B}, \underline{E \leftrightarrow C} \text{ and}$$

$$\underline{F \leftrightarrow A}.$$

So, (i) $\underline{\angle E \leftrightarrow \angle C}$ (ii) $\underline{\overline{EF} \leftrightarrow \overline{CA}}$

(iii) $\underline{\angle F \leftrightarrow \angle A}$ (iv) $\underline{\overline{DF} \leftrightarrow \overline{BA}}$

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