Access answers to Maths NCERT Solutions for Class 7 Chapter 7 – Congruence of Triangles Exercise 7.1

1. Complete the following statements:

(a) Two line segments are congruent if _____.

Solution:-

Two line segments are congruent if they have the same length.

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

Solution:-

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

Because, if two angles have the same measure, they are congruent. Also, if two angles are congruent, their measure are same.

(c) When we write ∠A = ∠B, we actually mean .

Solution:-

When we write ∠A = ∠B, we actually mean m ∠A = m ∠B.

2. Give any two real-life examples for congruent shapes.

Solution:-

The two real-life example for congruent shapes are,

(i) Fan feathers of same brand.

(ii) Size of chocolate in the same brand.

(iii) Size of pens in the same brand

3. If ΔABC ≅ ΔFED under the correspondence ABC ↔ FED, write all the

corresponding congruent parts of the triangles.

Solution:-

Two triangles are congruent if pairs of corresponding sides and corresponding angles are equal.

All the corresponding congruent parts of the triangles are,

∠A ↔ ∠F, ∠B ↔ ∠E, ∠C ↔ ∠D

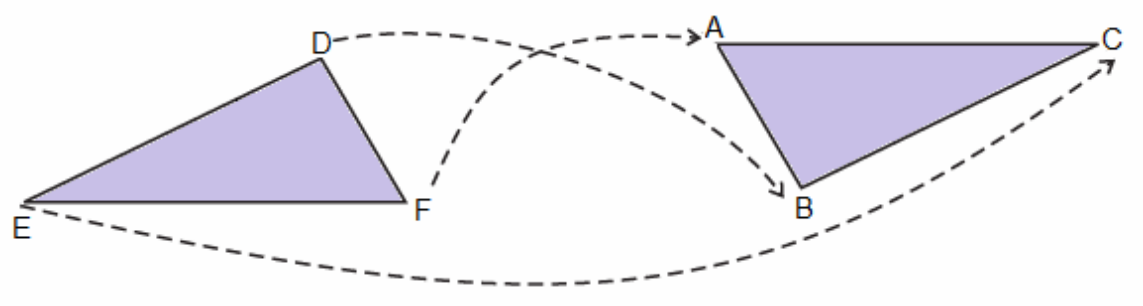
Correspondence between sides:

$\overline{AB} \leftrightarrow \overline{FE}$
$\overline{BC} \leftrightarrow \overline{ED}$
$\overline{CA} \leftrightarrow \overline{DF}$

4. If ΔDEF ≅ ΔBCA, write the part(s) of ΔBCA that correspond to

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

Solution:-



From above the figure we can say that,
The part(s) of ΔBCA that correspond to,

(i) ∠E ↔ ∠C

(ii)
$\overline{EF} \leftrightarrow \overline{CA}$

(iii) ∠F ↔ ∠A

(iv)
$\overline{DF} \leftrightarrow \overline{BA}$