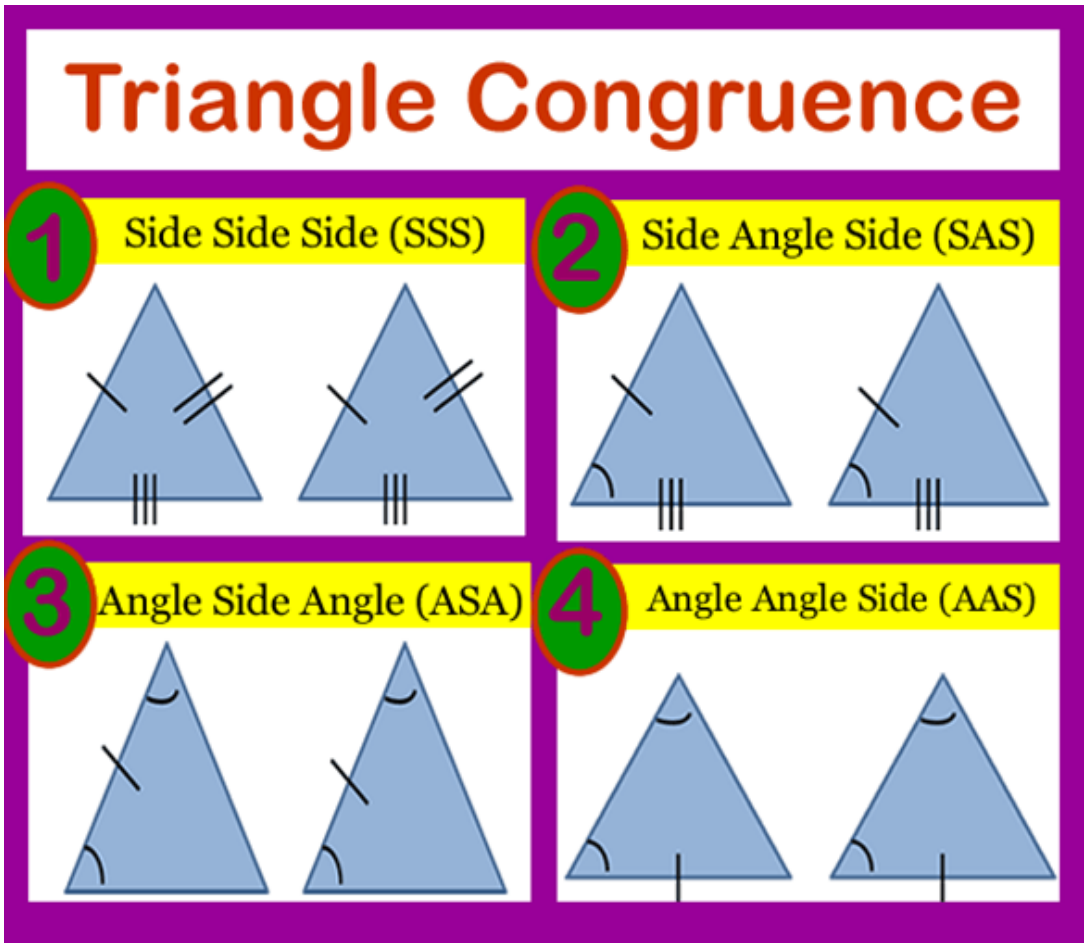
NCERT Class 7 Mathematics Solutions: Chapter 7 – Congruence of Triangles Exercise 7.1 Part 1



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:

(a) 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 other angle is $70°$

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

2. Give any two real time examples for congruent shapes.

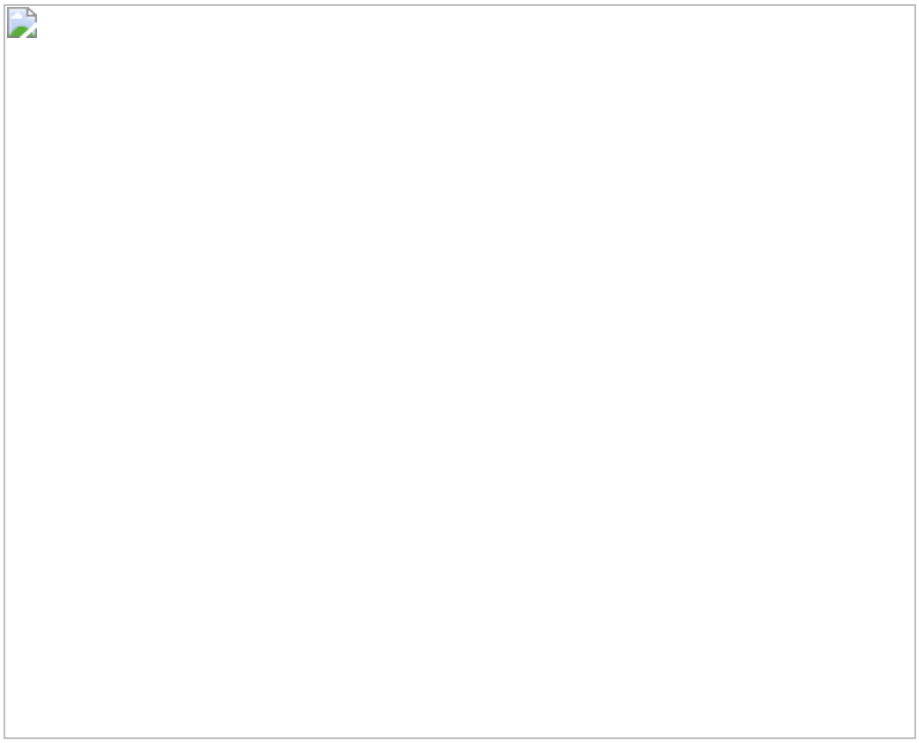
Answer:

(i) Two footballs

(ii) Two teacher's tables.

3. If $\Delta ABC \cong \Delta FED$ under the correspondence $ABC \longleftrightarrow FED$, write all the corresponding congruent parts of the triangles.

Answer:



Given,

$\Delta ABC \cong \Delta FED$

The corresponding congruent parts of the triangles are:

(i) $\angle A \longleftrightarrow \angle F$

(ii) $\angle B \longleftrightarrow \angle E$

(iii) $\angle C \longleftrightarrow \angle D$

(iv) $\overline{AB} \longleftrightarrow \overline{FE}$

(v) $\overline{BC} \longleftrightarrow \overline{ED}$

(vi) $\overline{AC} \longleftrightarrow \overline{FD}$

4. If $\Delta DEF \cong \Delta BCA$, write the part (s) of ΔBCA that correspond to:

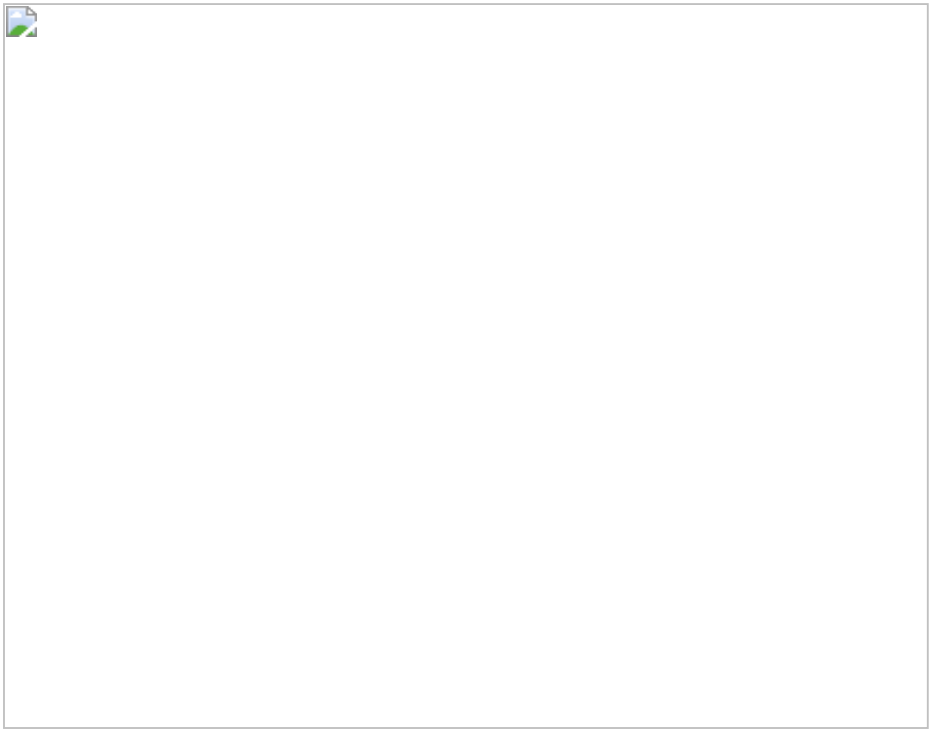
(i) $\angle E$

(ii) $\overline{EF}$

(iii) $\angle F$

(iv) $\overline{DF}$

Answer:



$\Delta DEF \cong \Delta BCA$

(i) $\angle E \longleftrightarrow \angle C$

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

(iii) $\angle F \longleftrightarrow \angle A$

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