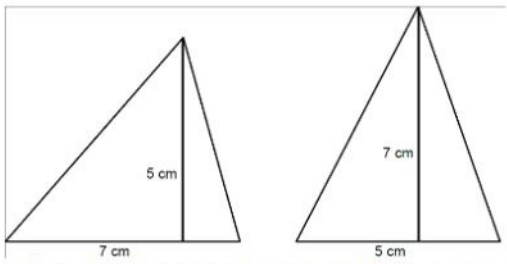
Exercise 16A

Q16

Answer :



Both triangles have equal area due to the the same product of height and base. But they are not congruent.

Q17

Answer :

(i) the same length

(ii) the same measure

(iii)the same side length

(iv) the same radius

(v) the same length and the same breadth

(vi) equal parts

Q18

Answer :

(i) False

This is because they can be equal only if they have equal sides.

(ii) True
This is because if squares have equal areas, then their sides must be of equal length.

(iii) False
For example, if a triangle and a square have equal area, they cannot be congruent.

(iv) False
For example, an isosceles triangle and an equilateral triangle having equal area cannot be congruent.

(v) False
They can be congruent if two sides and the included angle of a triangle are equal to the corresponding two sides and the included corresponding angle of another triangle.

(vi) True
This is because of the AAS criterion of congruency.

(vii) False
Their sides are not necessarily equal.

(viii) True
This is because of the AAS criterion of congruency.

(ix) False
This is because two right triangles are congruent if the hypotenuse and one side of the first triangle are respectively equal to the hypotenuse and the corresponding side of the second triangle.

(x) True

********** END **********