NALANDA V **Nalanda Vidyalaya – Colombo 10** ᴅA VIDYALAYA

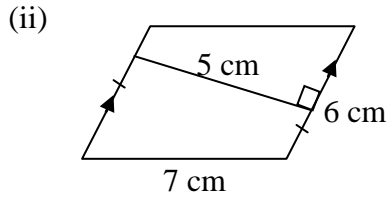NALANDA VIDYALAY **Unit Test Project** NALANDA VIDYALAYA
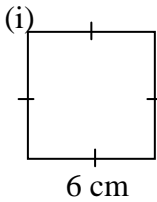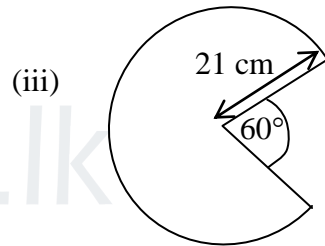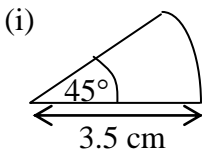
| Grade 10 | Mathematics | Unit : 6 - Area |

1) Find the area of each plane figure given below.

(i)

6 cm

(ii)

5 cm

6 cm

7 cm

(iii)

3 cm

8 cm

(iv)

4 cm

5 cm

(v)
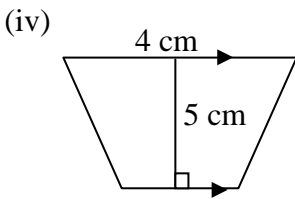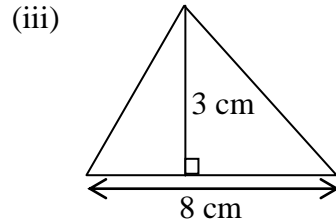
21 cm
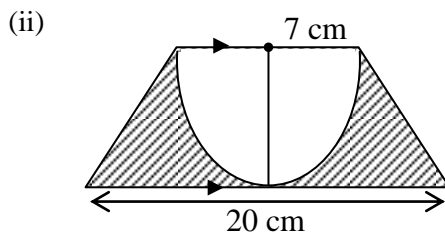
2) Find the area of the given sectors.

(i)

45°

3.5 cm

(ii)

O

14 cm

(iii)

21 cm

60°

3) Find the radius of a sector with centre angle 40° and area 154 cm$^2$.

4) Find the centre angle of a sector with radius 21 cm and area 385 cm$^2$.

5) Find the area of the shaded section.

(i)

7 cm

(ii)

7 cm

20 cm

(iii)

a

a/2

1
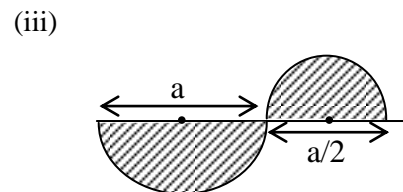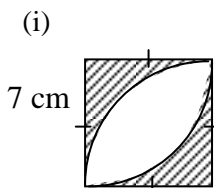
6) Following figure shows a sketch of a badge which was used to decorate a house in a sportsmeet of a certain school. It was made by using a square, ABC sector with a right angle at the centre and a semi circle.
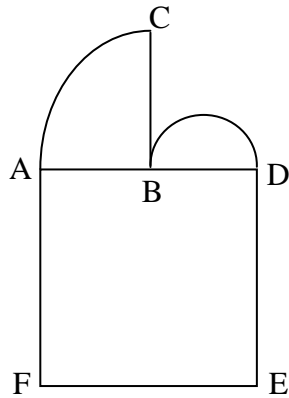


i) Find the arc length of the semi circle.

ii) Find the perimeter of the badge.

iii) What is the ratio of the area of ABC sector to the area of the bade.

iv) Finally it was decided to remove the semi circular part and attach another right angle triangle where the area equals to the area of semi circle and DE to be one boundary. Sketch the above triangle with measurements in the above figure.