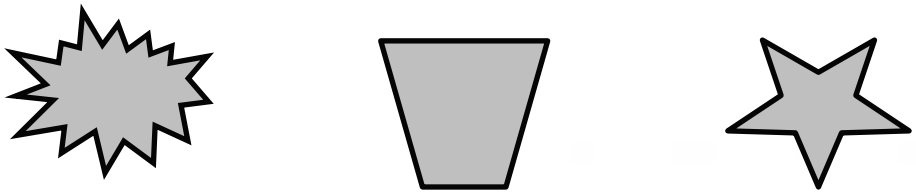
# Area

The amount of plane or region or surface enclosed by the figure is called the area.


In the following figure, the green portion represents the area of the figure.

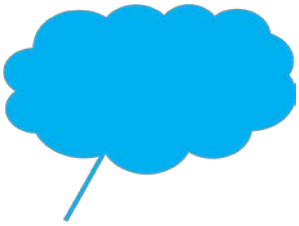
Now, suppose you want to fit tiles in your bedroom, how would you decide how many tiles will fit in the entire bedroom?

In such a case, we need to calculate the area of the hall.



Now, the above figure will also enclose some areas. We can find the approximate area by using squared paper of dimension 1 cm by 1 cm.

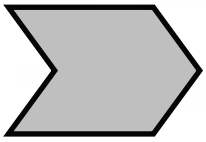
**Example:** By cutting squares, estimate the area of the figure.



| Covered | Number | Area Estimate (Sq units) |
|---|---|---|
| (i) Fully - filled squares | 11 | 11 |
| (ii) Half - filled squares | 3 | $3 \times \frac{1}{2}$ |
| (iii) More than Half - filled squares | 7 | 7 |
| (iv) Less than Half - filled squares | 5 | 0 |

Total area = $11 + 3 \times \frac{1}{2} + 7 = 19\frac{1}{2}$ sq units.

**Example**: By counting squares, estimate the area of the figure.



| Covered | Number | Area Estimate (Sq units) |
|---|---|---|
| (i) Fully - filled squares | 2 | 2 |
| (ii) Half - filled squares | 4 | $4 \times \frac{1}{2} = 2$ |
| (iii) More than Half - filled squares | 0 | 0 |
| (iv) Less than Half - filled squares | 0 | 0 |

Total area = 2 + 2 = 4 sq units