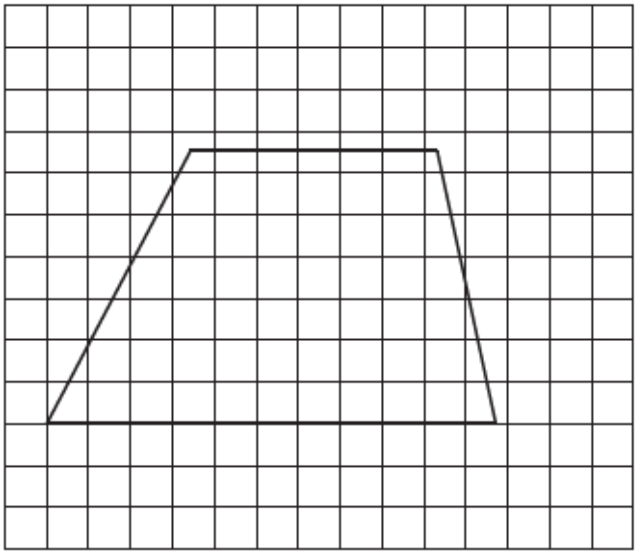
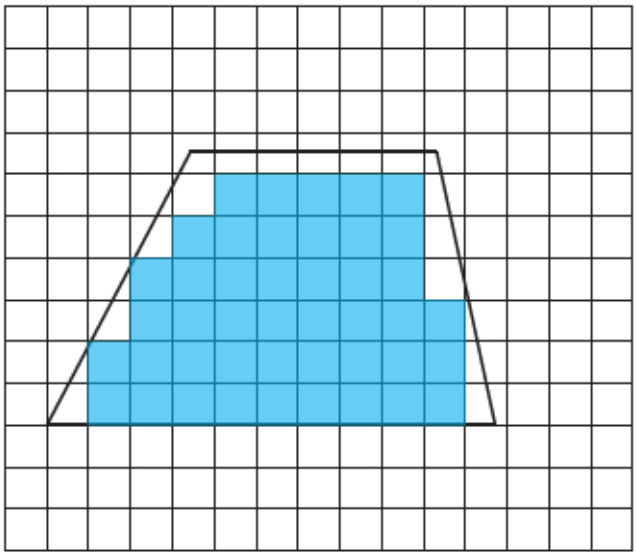
Estimation

1. Estimate the area of the trapezoid, using the underestimation/overestimation method. Each square represents 1 cm^2.



Step 1: Underestimate the area of the trapezoid.

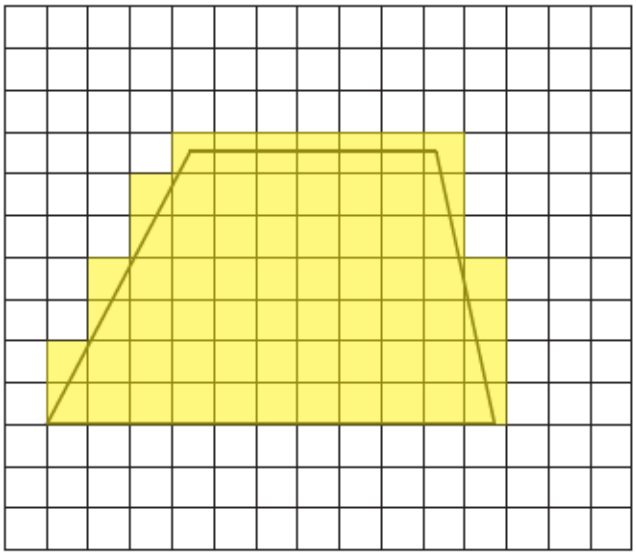
There are 44 full squares inside the trapezoid.



The underestimation is 44 cm^2.

Step 2: Overestimate the area of the trapezoid.

There are 65 squares touching the trapezoid.



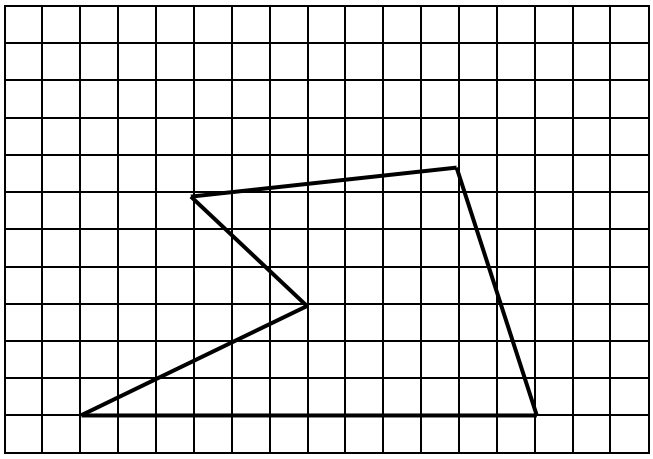
The overestimation is 65 cm^2.

Step 3: Calculate the average.

$$A_{estimate} = \frac{(underestimate + overestimate)}{2}$$
$$= \frac{(44\ cm^2 + 65\ cm^2)}{2}$$
$$= 54.5\ cm^2$$

The area of the trapezoid is about 54.5 cm^2.

2. Estimate the area of the shape, using the underestimation/overestimation method. Each square represents 1 m^2.



Step 1: Underestimate the area of the shape.

There are 36 full squares inside the shape.
The underestimation is 36 m^2.

Step 2: Overestimate the area of the shape.

There are 56 squares touching the shape.
The overestimation is 56 m^2.

Step 3: Calculate the average.

$$A_{estimate} = \frac{(underestimate + overestimate)}{2}$$
$$= \frac{(36\ m^2 + 56\ m^2)}{2}$$
$$= 46\ m^2$$

The area of the trapezoid is about 46 cm^2.