

# ANSWERS

## AREA OF TRAPEZOIDS

Instructions: Calculate the area of the Trapezoids in different everyday situations.

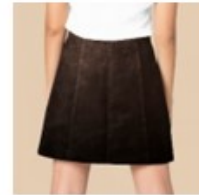
### Exercise 1: The Skirt

Martha is a fashion designer, and she is making a skirt with a larger base of 98 cm, a smaller base of 65 cm, and a height of 97 cm.

**Question:** What is the area of Martha's skirt design?

**Solution:**

$$\begin{aligned} \text{Area} &= (98 \text{ cm} + 65 \text{ cm}) * 97 \text{ cm} / 2 \\ &= 163 \text{ cm} * 97 \text{ cm} / 2 \\ &= 15811 \text{ cm}^2 / 2 \\ &= 7905,5 \text{ cm}^2 \end{aligned}$$



### Exercise 2: The Desk

In Dad's study, there is a desk with a tabletop in the shape of a trapezoid. Its larger base is 80 cm, the smaller base is 60 cm, and its height is 45 cm.

**Question:** What is the area of the tabletop?

**Solution:**

$$\begin{aligned} \text{Area} &= (80 \text{ cm} + 60 \text{ cm}) * 45 \text{ cm} / 2 \\ &= 140 \text{ cm} * 45 \text{ cm} / 2 \\ &= 6300 \text{ cm}^2 / 2 \\ &= 3150 \text{ cm}^2 \end{aligned}$$



### Exercise 3: The Lion

At the zoo, the lion rests on a cement wall in the shape of a trapezoid, which has a larger base of 90 cm, a smaller base of 80 cm, and a height of 70 cm.

**Question:** What is the area of the wall?

**Solution:**

$$\begin{aligned} \text{Area} &= (90 \text{ cm} + 80 \text{ cm}) * 70 \text{ cm} / 2 \\ &= 170 \text{ cm} * 70 \text{ cm} / 2 \\ &= 11900 \text{ cm}^2 / 2 \\ &= 5950 \text{ cm}^2 \end{aligned}$$



How Did You Do? 😊 😐 😞