



Worksheet on Perimeter and Area



Multiple Choice Questions

- Which of the following formulas is used to calculate the area of a parallelogram?
 - Base + height
 - Base $\times$ height
 - $12 \times \text{base} \times \text{height}$
 - Base – height
- Which of the following changes will double the area of a parallelogram without changing its shape?
 - Doubling the base and halving the height
 - Doubling the height and keeping the base constant
 - Doubling both the base and the height
 - Halving both the base and the height
- Which of the following statements is true about the area of a parallelogram and a rectangle with the same base and height?
 - The area of the parallelogram is greater than the area of the rectangle.
 - The area of the parallelogram is less than the area of the rectangle.
 - The area of the parallelogram is equal to the area of the rectangle.
 - The area of the parallelogram depends on its angles.
- A parallelogram has a base of 8 cm and an area of 64 cm^2 . What is its height?
 - 8 cm
 - 6 cm
 - 10 cm
 - 4 cm
- If the perimeter of a parallelogram is 40 cm and the length of one of its sides is 12cm, find the lengths of the other three sides?
 - 10cm, 10cm, 12cm
 - 12cm, 8cm, 8cm
 - 15cm, 5cm, 10cm
 - 12cm, 20 cm, 8cm

Long Answer Questions

- A parallelogram has one side that is three times as long as the other. If the area of the parallelogram is 150 cm^2 and the shorter side is 5 cm, find the height corresponding to the longer side.
- A company is installing a solar panel array in the shape of a parallelogram on a flat roof. The array has a base of 18 metres and a height of 12 metres. The company wants to divide the array into three smaller, equal-area parallelogram sections by drawing lines parallel to its base. What will be the base and height of each of the smaller sections?



Answers

Multiple Choice Questions

1. Which of the following formulas is used to calculate the area of a parallelogram?

Answer: B) base $\times$ height

2. Which of the following changes will double the area of a parallelogram without changing its shape?

Answer: B) Doubling the height and keeping the base constant

3. Which of the following statements is true about the area of a parallelogram and a rectangle with the same base and height?

Answer: C) The area of the parallelogram is equal to the area of the rectangle

4. A parallelogram has a base of 8 cm and an area of 64 cm^2 . What is its height?

Answer: A) 8 cm

5. If the perimeter of a parallelogram is 40 cm and the lengths of its sides are 12 cm and 8 cm, what are the lengths of the other two sides?

Answer: B) 12 cm, 8cm, 8cm

Long Answer Questions

1. A parallelogram has one side that is three times as long as the other. If the area of the parallelogram is 150 cm^2 and the shorter side is 5 cm, find the height corresponding to the longer side.

Answer: The height corresponding to the longer side is 10 cm.

2. A company is installing a solar panel array in the shape of a parallelogram on a flat roof. The array has a base of 18 metres and a height of 12 metres. The company wants to divide the array into three smaller equal-area parallelogram sections by drawing lines parallel to its base. What will be the base and height of each of the smaller sections?

Answer: The base of each smaller section will be 18 meters and the height will be 4 metres.