

PRISM

A prism is a solid shape with two identical flat ends, which can be in the shape of a square, triangle, or rectangle. These flat ends, such as a triangular or square prism, determine the prism type. Unlike curved shapes, prisms have straight lines connecting all sides and are considered closed shapes. They are solid shapes covered on all sides by flat surfaces called faces. The top and bottom faces of the prism are identical and referred to as its base.

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Q1: What is the total surface area of a prism?

- A: The sum of the areas of its bases
 - B: The sum of the areas of its lateral faces
 - C: $(2 \times \text{Base Area}) + (\text{Base Perimeter} \times \text{Height})$
 - D: Half of the sum of the areas of its bases
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Q2: A pentagonal prism has how many sides on each base?

- A: 3
 - B: 4
 - C: 5
 - D: 6
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Q3: What is the formula for the total volume of a prism?

- A: Base area \times Height
 - B: $2 \times \text{Base area} \times \text{Height}$
 - C: Base area + Height
 - D: Base area \times Height / 2
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Q4: What is the number of faces of a rectangular prism?

- A: 4
 - B: 8
 - C: 3
 - D: 6
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Q5: What is the volume of an irregular prism?

- A: $\frac{1}{2}$ Base area \times Height
 - B: Base area \times Height
 - C: Base area + Height
 - D: Base area \times Height / 2
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Q6: Calculate the Total Surface Area of a prism with a base area of 12, perimeter of 10, and height of 5

- A: 70
 - B: 72
 - C: 74
 - D: 76
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Q7: Calculate the Volume of a Prism with a base area of 15 and height of 10

- A: 150
 - B: 170
 - C: 190
 - D: 200
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Q8: What are the values of perpendicular angles of Right Prisms?

- A: 75 degrees
 - B: 80 degrees
 - C: 85 degrees
 - D: 90 degrees
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Q9: Identify types of Prisms

- A: Square Prism
 - B: Triangular Prism
 - C: Rectangular Prism
 - D: All of these
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Q10: How many edges does a Square Prism have?

- A: 10
 - B: 12
 - C: 16
 - D: 18
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Answers

Q1: C - $(2 \times \text{Base Area}) + (\text{Base Perimeter} \times \text{Height})$

Q2: C - 5

Q3: A - Base area \times Height

Q4: D - 6

Q5: B - Base area \times Height

Q6: C - 74

Q7: A - 150

Q8: D - 90 degrees

Q9: D - All of these

Q10: B - 12