

42. How to calculate the area of a triangle



Scenario Questions:

1. Sarah is planning to paint a triangular mural on her bedroom wall. The base of the triangle is 5 feet and the height is 3 feet. What is the area of the painted section if she covers the entire triangle?
2. A construction company uses triangular metal brackets to reinforce shelves. If the base of a bracket is 10cm and the height is 6cm, what is the area of the triangular bracket?
3. Ethan wants to build a small shed with a triangular roof. The base of the triangle is 4m and the height is 2m. What is the area of the triangular part to the roof?
4. The base of a triangular road sign is 2 feet and the height is 1.5 feet. How much reflective vinyl material is needed to cover the entire triangular area of the sign?
5. Lisa wants to sew a triangular fabric pennant for her home décor project. The base of the pennant is 12 inches and the height is 9 inches. What is the area of the fabric she needs?

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Scenario Questions:

6. In a construction project, a triangular area of land needs to be cleared of vegetation. The base of the triangle is 20m and the height is 8m. What is the area of the land that needs to be cleared?

7. A retail store is designing a triangular display. Each shelf in the display has a base of 30cm and a height of 12cm. What is the total area of three of these triangular shelves?

8. Kylie needs to cut a triangular piece of carpet to fit a corner of the room. The base of the triangle is 5 feet and the height is 4 feet. How much carpet material does she need?

9. A construction company is pouring concrete to create a triangular slab foundation. The base of the triangle is 6m and the height is 3m. What is the area of the concrete slab foundation?

10. In a retail store, a product box has a triangular end. If the base of the triangle is 8 inches and the height is 6 inches. What is the area the triangular end occupies on the shelf?

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Scenario Questions: **Answers**

1. Sarah is planning to paint a triangular mural on her bedroom wall. The base of the triangle is 5 feet and the height is 3 feet. What is the area of the painted section if she covers the entire triangle surface?

1. Area = 7.5 square feet

2. A construction company uses triangular metal brackets to reinforce shelves in retail stores. If the base of a bracket is 10 centimeters and the height is 6 centimeters, what is the area of the triangular bracket?

2. Area = 30 square centimeters

3. Ethan wants to build a small shed with a triangular roof. The base of the triangle is 4 m and the height is 2 m. What is the area of the triangular part to the roof?

3. Area = 4 square meters

4. The base of a triangular road sign is 2 feet and the height is 1.5 feet. How much reflective vinyl material is needed to cover the entire triangular area of the sign?

4. Area = 1.5 square feet

5. Lisa wants to sew a triangular fabric pennant for her DIY home décor project. The base of the pennant is 12 inches and the height is 9 inches. What is the area of the fabric she needs for the pennant?

5. Area = 54 square inches

6. In a construction project, a triangular area of land needs to be cleared of vegetation. The base of the triangle is 20 meters and the height is 8 meters. What is the area of the land that needs to be cleared?

6. Area = 80 square meters

7. A retail store is designing a triangular display. Each shelf in the display has a base of 30cm and a height of 12cm. What is the total area of three of these triangular shelves?

7. Total area = 540 square centimeters

8. In a DIY flooring project, Kylie needs to cut a triangular piece of carpet to fit a corner of the room. The base of the triangle is 5 feet and the height is 4 feet. How much carpet material does she need for this triangular section?

8. Amount of carpet material needed = 10 square feet

9. A construction company is pouring concrete to create a triangular slab foundation. The base of the triangle is 6 meters and the height is 3 meters. What is the area of the concrete slab foundation?

9. Area of the concrete slab = 9 square meters

10. In a retail store, a product box has a triangular end. If the base of the triangle is 8 inches and the height is 6 inches. What is the area the triangular end occupies on the shelf?

10. Display space for one box = 24 square inches