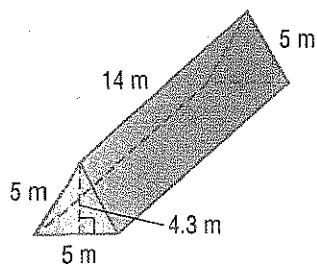


Surface Area of Triangular Prisms



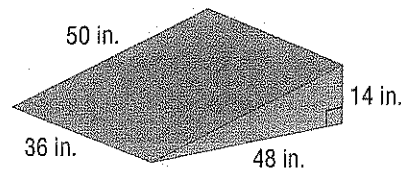
Guided Practice

1. Find the surface area of the triangular prism. (Examples 1–2) _____



Show your work.

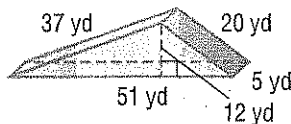
2. A skateboarding ramp is in the shape of a triangular prism. If the entire ramp is to be painted, what is the surface area to be painted? (Example 3) _____



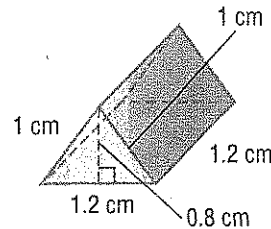
Independent Practice

Find the surface area of each triangular prism. (Examples 1–2)

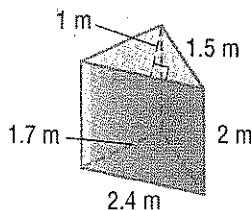
1. _____



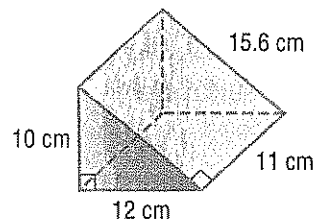
2. _____



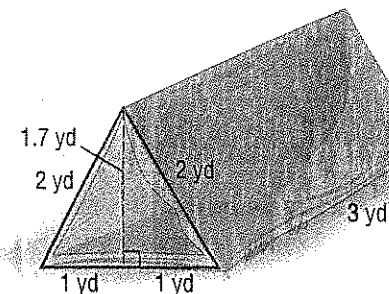
3



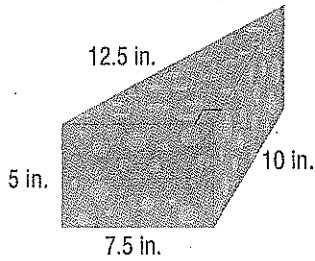
4. _____



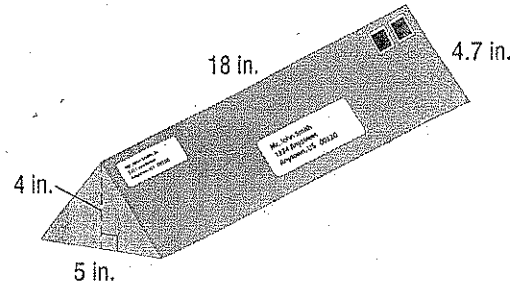
5. A tent is in the shape of a triangular prism. About how much canvas, including the floor, is used to make the tent? (Example 3)
- _____



6. A decorative gift box is in the shape of a triangular prism as shown at the right. What is the surface area of the box? (Example 3)



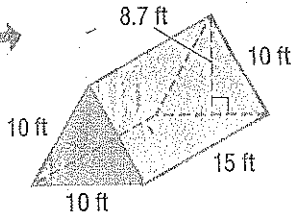
7. A mailer for posters is a triangular prism as shown at the right. Find the surface area of the mailer. (Example 3)



CCSS Be precise Find the surface area of each triangular prism. Round to the nearest tenth if necessary.

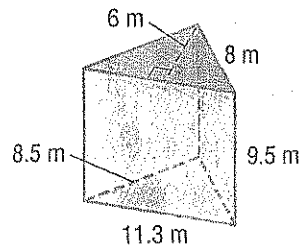
13. 537 ft^2

Homework Help



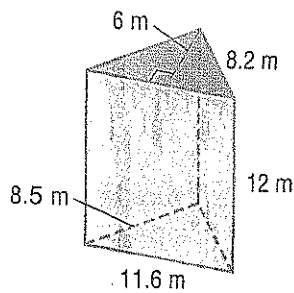
$$\begin{aligned} \text{area of each base: } & \frac{1}{2} \cdot 10 \cdot 8.7 = 43.5 \text{ ft}^2 \\ \text{area of each face: } & 15 \cdot 10 = 150 \text{ ft}^2 \\ \text{surface area} &= 2(43.5) + 3(150) \\ &= 537 \text{ ft}^2 \end{aligned}$$

14. 331.9 m^2



$$\begin{aligned} \text{area of each base: } & \frac{1}{2} \cdot 11.3 \cdot 6 = 33.9 \text{ m}^2 \\ \text{areas of faces: } & 11.3 \cdot 9.5 = 107.35 \text{ m}^2 \\ & 8.5 \cdot 9.5 = 80.75 \text{ m}^2 \\ & 8 \cdot 9.5 = 76 \text{ m}^2 \\ \text{surface area} &= 33.9 + 33.9 + 107.35 + \\ & 80.75 + 76 \text{ or } 331.9 \text{ m}^2 \end{aligned}$$

18.



19. base: isosceles triangle
base side lengths: 10 cm, 10 cm, 9 cm
height of base triangles: 8.9 cm
height of prism: 12 cm