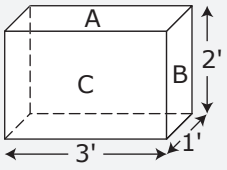
Date _____

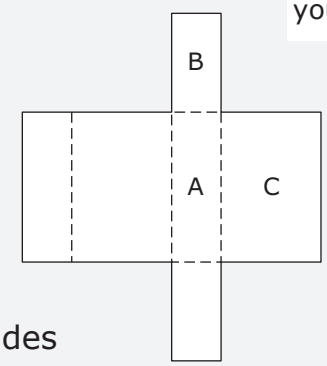
Skills Practice 14: Calculating Surface Area

Surface area is the number of square units needed to cover the outside of an object.

Go to pages 187–188 to write the definition for **surface area** in your own words.

Rectangular Prisms

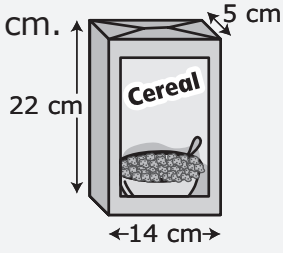




In all rectangular prisms, the 6 sides are made up of 3 pairs of rectangles.

2-D Shape	Area $A = l \times w$	Number of Matching Faces	Total Area
A. Top/Bottom	$3 \times 1 = 3$	2	$3 \times 2 = 6$ ft^2
B. Left/Right	_____ × _____		_____ × _____ = _____ ft^2
C. Front/Back	_____ × _____		_____ × _____ = _____ ft^2
		Total Surface Area	

1. A cereal box has dimensions 22 cm, 14 cm, and 5 cm.



a) Sketch a net of the cereal box.

b) Calculate the total surface area of the box.

2-D Shape	Area	Number of Matching Faces	Total Area
		Total Surface Area	

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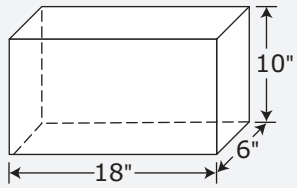
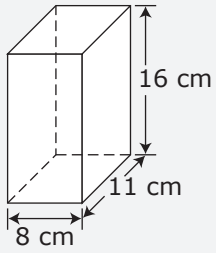
2. Find the surface area of the following rectangular prisms.

a)

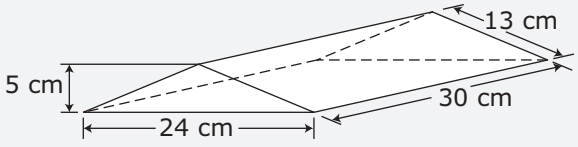


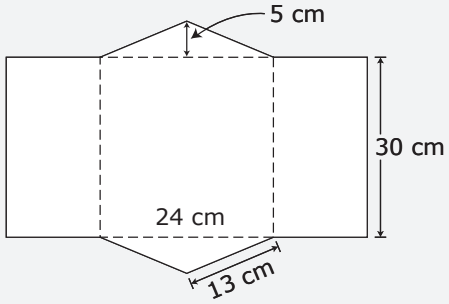
b)



Triangular Prisms

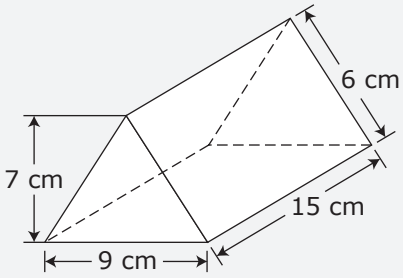
In triangular prisms, the triangles are matching sides.





2-D Shape	Area	Number of Matching Faces	Total Area
Front/Back Triangles	A = (base × height) ÷ 2 = 24 × 5 ÷ 2 = 60 cm^2		
Left/Right Rectangles	$A = l \times w$ = _____		
Bottom Rectangle	$A = l \times w$ = _____		
		Total Surface Area	

3. Calculate the surface area of the following triangular prism.



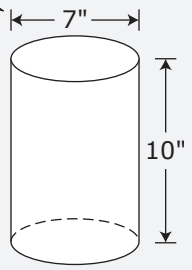
Date _____

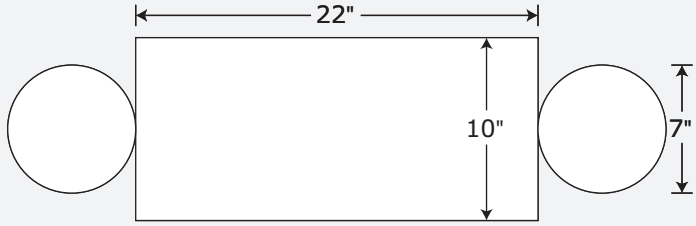
Chapter 7

Cylinders

- The top and bottom of a cylinder are circles.
- If you cut the tube from top to bottom, it unfolds to become a rectangle.
- The width of the rectangle equals the circumference of the circle.

$C = \pi d$
$\approx 3.14 \times 7$
≈ 22

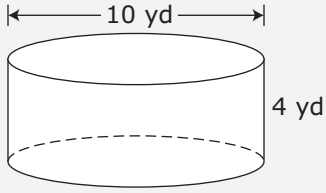




2-D Shape	Area	Number of Matching Faces	Total Area
Top/ Bottom Circles	$A = \pi \times r^2$ $\approx 3.14 \times 3.5 \times 3.5$ $\approx 38.5 \text{ in}^2$		
Rectangle	$A = l \times w$ $=$ _____		
		Total Surface Area	

4. Find the surface area of the following cylinders.

a)



b)