Name: _____ **Date:** _____

5.1 Views of Three-Dimensional Objects

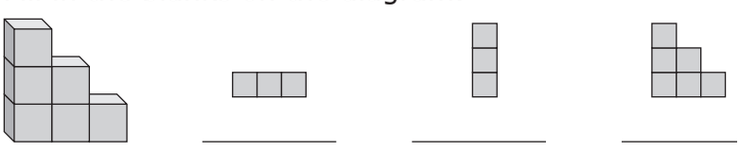
***MathLinks 8*, pages xxx–xxx**

Key Ideas Review

Choose the word from column B that fits the sentence in column A.

A	B
1. a) A minimum of _____ views are needed to describe _____ objects.	draw
b) Using the _____, _____, and _____ views, you can _____ or _____ a _____ object.	top 3-D build front three side

2. Fill in the blanks on the diagram.



_____ _____ _____

Practise and Apply

3. Sketch each view—top, side, and front.

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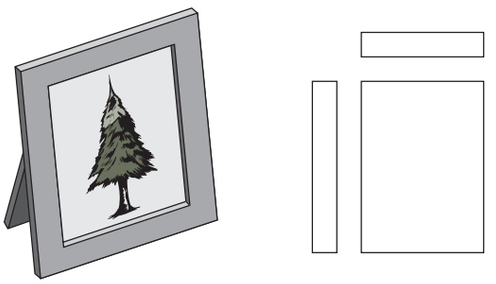
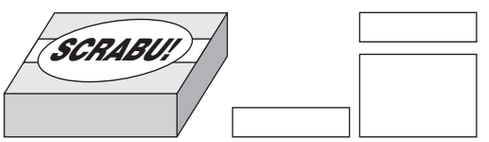
4. Which view represents the top view of each object?

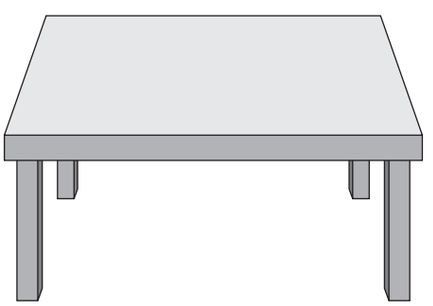
a)



b)

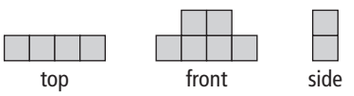


5. Draw the top, front, and side views when this table is rotated 90° clockwise.

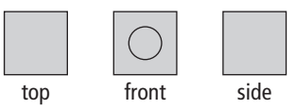


6. Sketch each 3-D object from the three views given.

a)



b)



Name: _____ **Date:** _____

5.2 Nets of Three-Dimensional Objects

***MathLinks 8*, pages xxx–xxx**

Key Ideas Review

1. Complete each statement.

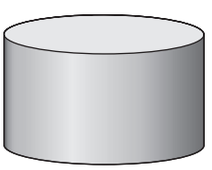
a) A _____ is a 2-D figure that creates a 3-D object when it is folded.

b) Different nets can be folded into the same _____ _____.

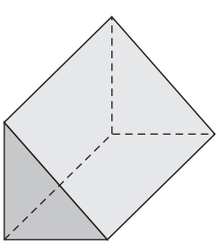
Practise and Apply

2. Draw a net for each object.

a)



b)



c)

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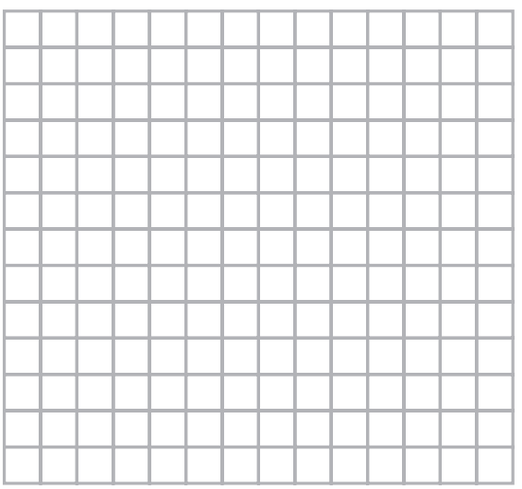
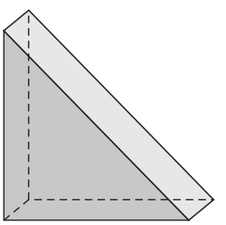
3. Using the grid box, draw a net for a rectangular prism with a length of 8 units, the width of 2 units and the height of 3 units.



4. Draw at least four possible nets for a cube. (Each net must fold to create a cube.)

5. Jocelyn is creating a piece of modern art for her new room using decoupage. This art form involves gluing paper cutouts onto an object. Draw a net of her object so she can do a draft of her design.



6. A company that manufactures pencils decides to shorten the length of their pencils by 5 cm. A regular pencil measures 19 cm in length.

a) Draw a net of the new pencil with all measurements labelled.

b) Draw a net for a new box that holds ten pencils of the new length. Label your net with all measurements.

Name: _____ **Date:** _____

5.3 Surface Area of a Prism

***MathLinks 8*, pages xxx–xxx**

Key Ideas Review

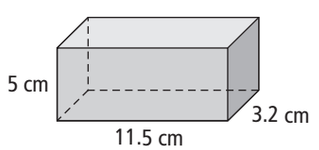
1. Complete the statement.

Finding the sum of all the areas of each _____ on a 3-D object is called calculating the _____ _____.

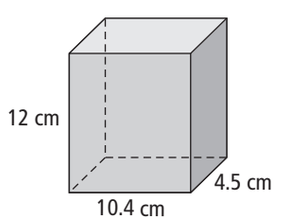
Practise and Apply

2. Calculate the surface area of each rectangular prism to the nearest tenth of a centimetre.

a)

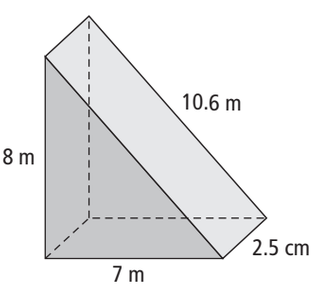


b)

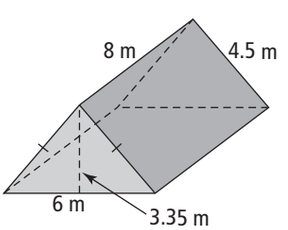


3. Find the surface area of each triangular prism to the nearest tenth of a meter.

a)

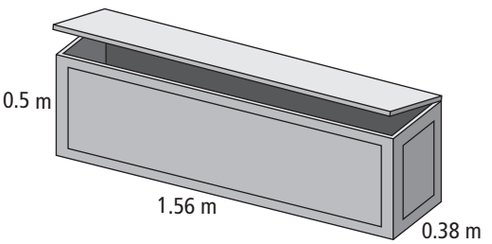


b)

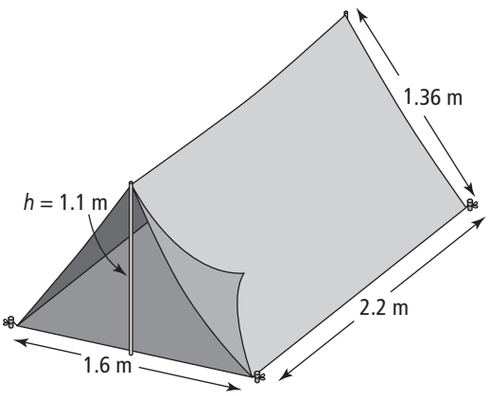


Name: _____ **Date:** _____

4. Ty is painting this storage bench for the deck. How much area does he need to paint, to the nearest hundredth of a square metre?



5. The Rileys need to make a new cover for their tent before going camping this summer. Their tent measures 2.2 m in length by 1.6 m wide, and it has a height of 1.1 m.



a) Calculate the amount of material they need to make the new cover.

b) Waterproof material at the Fabric Warehouse is on sale this week for $24.95 a square metre. Calculate the cost to make the new cover.

Name: _____ **Date:** _____

5.4 Surface Area of a Cylinder

***MathLinks 8*, pages xxx–xxx**

Key Ideas Review

Choose from the following terms to complete #1.

3-D object	add	area	circumference	cylinder

1. Complete each statement.

a) To find the surface area of a cylinder, you _____ the _____ of each face of the object.

b) A net of a _____ is made up of three faces.

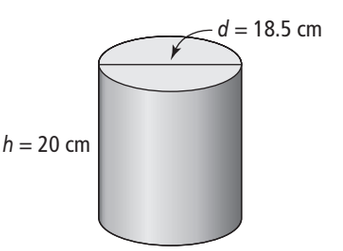
c) The rectangle in the net of a cylinder uses the _____ of the circle as one dimension.

Practise and Apply

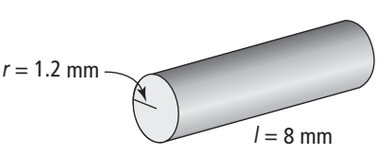
2. Sketch a net for this cylinder.

3. Estimate the surface area for each cylinder.

a)

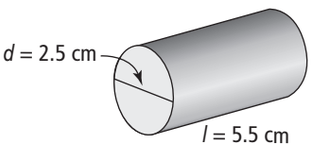


b)



Name: _____ **Date:** _____

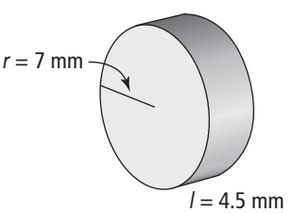
4. Calculate the surface area of this cylinder to the nearest hundredth of a square centimetre.



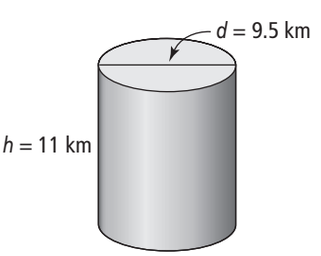
5. Use the following formula to find the surface area of each cylinder to the nearest hundredth of a square unit.

$SA = (2 \times \pi \times r^2) + (\pi \times d \times h)$

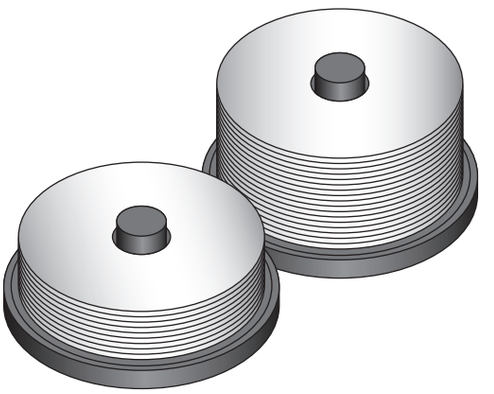
a)



b)



6. Recordable disks come in bulk packaging of various sizes.



A single compact disk has a diameter of 12 cm and a width of 0.1 cm.

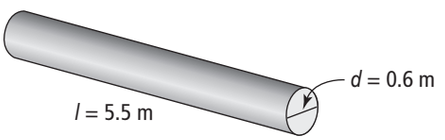
a) Calculate the surface area of one compact disk to the nearest tenth of a centimetre.

b) Calculate the surface area of a bulk container that holds 50 compact disks. Explain your reasoning.

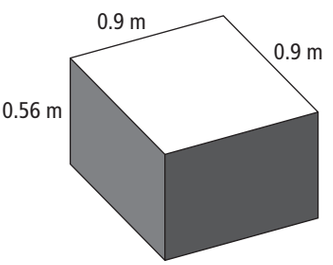
Name: _____ **Date:** _____

Link It Together

1. You have been asked to make two parts of the Dog Agility course for this year's competition. One piece is a tunnel made out of durable nylon that the dogs run through.



The other piece is a pause table that the dogs must stay stationary on for a fixed amount of time.



a) Sketch the top, front, and side view of each piece.

b) Draw a net of each.

c) Calculate the surface area of each piece to the nearest hundredth of a square metre.

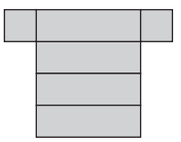
Name: _____ **Date:** _____

Vocabulary Link

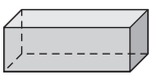
Use the visuals or explanation to identify the key words from Chapter 5. Then, write them in the crossword puzzle blank.

Across

3. _____



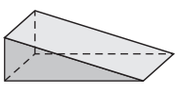
6. _____



Down

1. _____ _____ is the number of square units needed to cover a 3-D object.

4. _____ _____



2. _____

5. _____