

# Geometry Choice Board Assessment:

This unit, you will show what you know by completing a Geometry Choice Board that will count as your test grade. Certain activities are optional, while other activities will be required. You will receive approximately three and a half days of class time to work on the project. You will need to complete parts of the project at home for homework as well. The project will be due: Monday, December 17<sup>th</sup>.

<p style="text-align: center;"><b>House Blue Print:</b> <b>3 points</b></p> <p>Find the area of each room in the house blue print. Find the total area of the house and answer the questions.</p> <p style="text-align: center;">MGSE6.G. 1</p>	<p style="text-align: center;"><b>iReady Fractional Length Volume Lesson: 1 point</b></p> <p>Complete and pass the assigned blue lesson about volume with fractional length</p> <p style="font-size: small;">*In order to complete this assignment, you must be caught up on your iReady blue lessons</p> <p style="text-align: center;">MGSE6.G. 2</p>	<p style="text-align: center;"><b>Box of Holiday Joy:</b> <b>3 points</b></p> <p>Bring in an unopened box of cereal and calculate the area of each face, the surface area, and the volume. All cereal boxes will be donated to NFCC.</p> <p style="text-align: center;">MGSE6.G. 1, MGSE6.G. 2, MGSE6.G. 3</p>
<p style="text-align: center;"><b>IXL:</b> <b>1 point</b></p> <p>Score 100% on <b>one</b> of the following topics</p> <p style="text-align: center;">FF.14 or FF.15</p> <p style="text-align: center;">MGSE6.G. 2, MGSE6.G. 3</p>	<p style="text-align: center;"><b>Illuminate Unit Questions:</b> <b>3 points (required)</b></p> <p>Complete the illuminate assessment questions. You can access the assessment at <a href="http://www.bit.ly/epms1819">www.bit.ly/epms1819</a></p> <p style="text-align: center;">Access Code: M9AV3FU</p> <p style="text-align: center;">MGSE6.G. 1, MGSE6.G. 2, MGSE6.G. 3</p>	<p style="text-align: center;"><b>Quizizz:</b> <b>1 point</b></p> <p>Complete the Quizizz with a score of 80% or higher. Make sure you put your first and last name in as your name.</p> <p style="text-align: center;">Code: 136931</p> <p style="text-align: center;">MGSE6.G. 1</p>
<p style="text-align: center;"><b>“Facing Math”:</b> <b>2 points</b></p> <p>Complete the “Facing Math” activity- Lesson 18: Geometric Figures, Surface Area, and Volume</p> <p style="text-align: center;">MGSE6.G. 1, MGSE6.G. 2, MGSE6.G. 3</p>	<p style="text-align: center;"><b>Area- Solve and Color Activity: 2 points</b></p> <p>Complete the solve and color activity on area.</p> <p style="text-align: center;">MGSE6.G. 1</p>	<p style="text-align: center;"><b>What’s My Area Activity- 2 points</b></p> <p>Find the area of the bird by breaking down the composite figure.</p> <p style="text-align: center;">MGSE6.G. 1</p>

**You need to complete enough activities to have at least 10 points out of 18 points.**

# HOUSE Blue Print

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

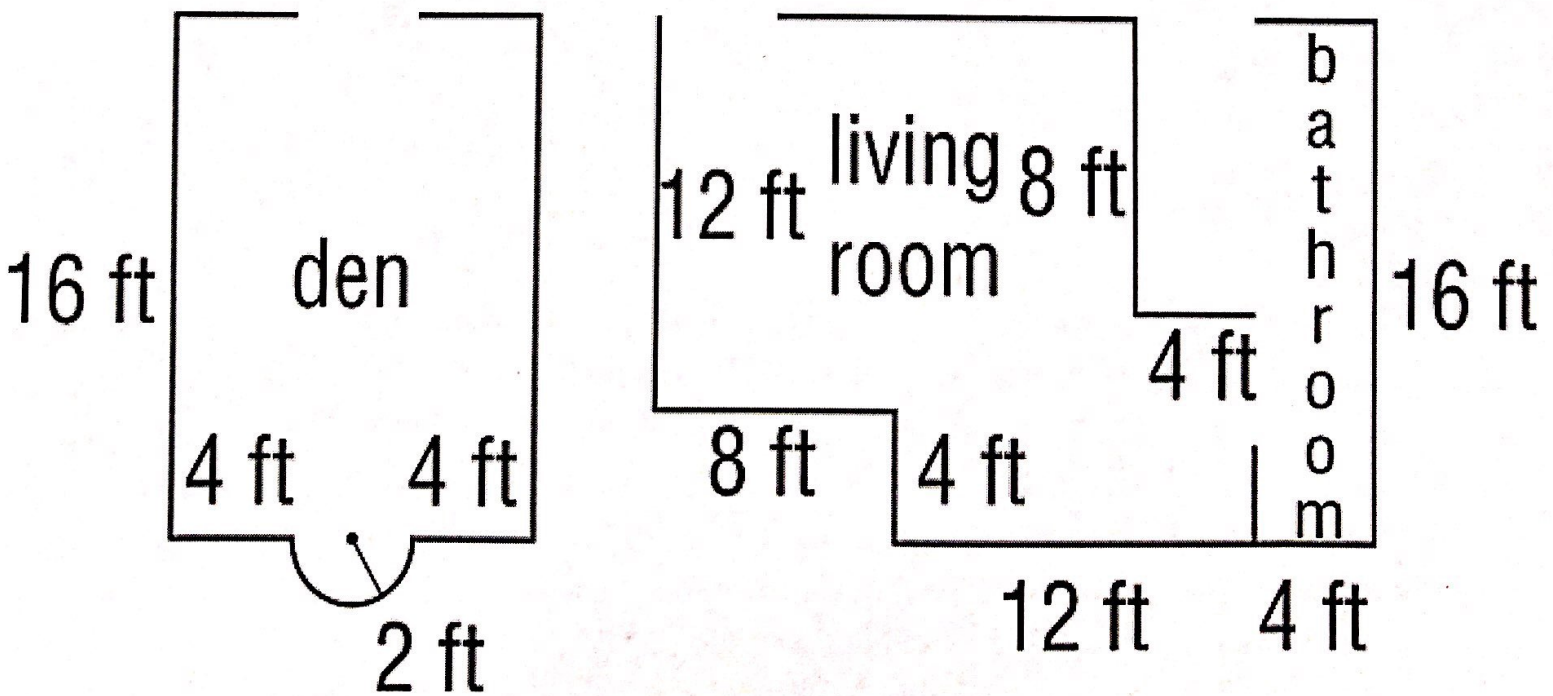
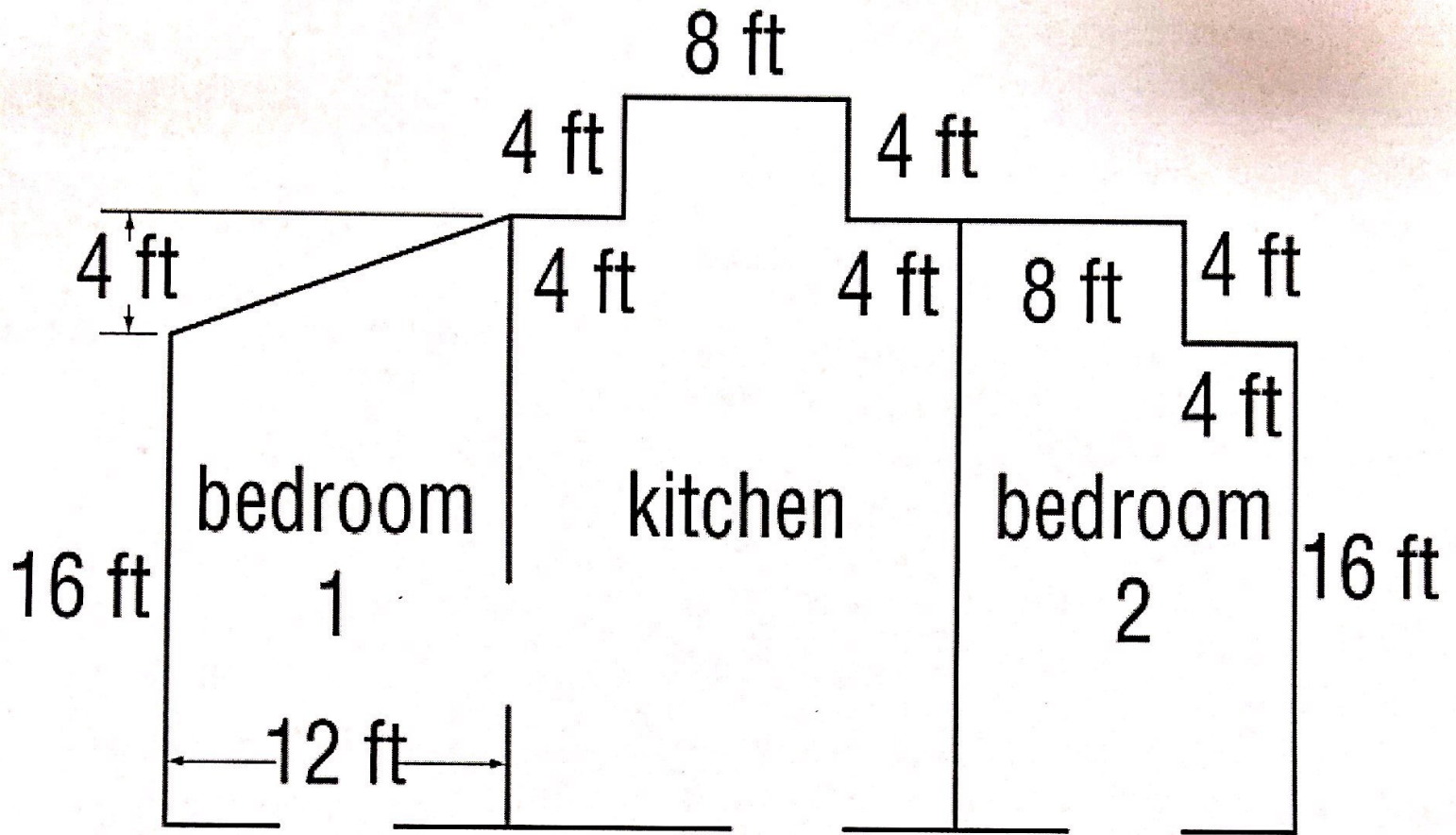
Find the area of each room of the house and combine them all together to find the total square footage of the house.

Room	Area
Bedroom 1	
Kitchen	
Bedroom 2	
Bathroom	
Living Room	
Den	
Total Square Footage of House	

Area for Scratch Work:



Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_



Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

## **Box Of Holiday Joy:**

To complete this assignment, you will need to bring in a rectangular prism unopened box of cereal/snack food/pasta/etc. to donate to NFCC. Once you brought in your box, you will complete the following questions and calculations.

1. What kind of box did you bring in? \_\_\_\_\_
2. Draw a picture of the box in the space provided below.

3. Circle what unit you are measuring your box in:      Inches      Centimeters

4. Measure the length, width, and height of the box. Place those measurements in the chart below.

Length	Width	Height

5. Calculate the area of each face of the box.

Front	Back	Top
Bottom	Left Side	Right Side



Name: \_\_\_\_\_

Date: \_\_\_\_\_

Period: \_\_\_\_\_

6. Calculate the surface area of the box in the space provided below. Make sure you show your work.

The surface area of my box is \_\_\_\_\_






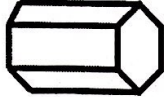





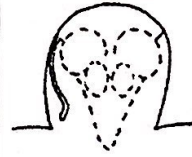

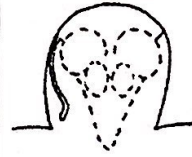





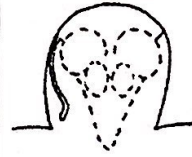






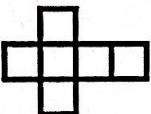




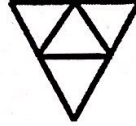














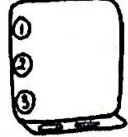
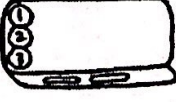
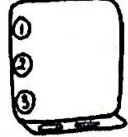
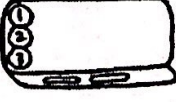
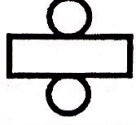


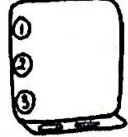
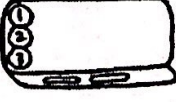
7. Calculate the volume of the box in the space provided below. Make sure you show your work.

The volume of my box is \_\_\_\_\_

8. In complete sentences, explain a real world situation in which it might be important to know the measurements of the area of each face, and the surface area and volume of the box.

## Lesson 18: Geometric Figures, Surface Area & Volume

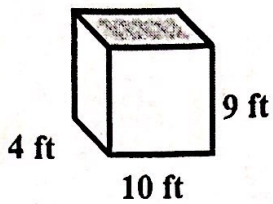
**Directions:** Solve each problem. Choose the correct answer.

<p><b>1. Name the polyhedron.</b></p> <div style="text-align: center;"></div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>(a) If your answer is <b>rectangular prism</b> draw the following face.</p> </td> <td style="width: 50%; text-align: center; padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>(b) If your answer is <b>cube</b> draw the following face.</p> </td> <td style="text-align: center; padding: 5px;"></td> </tr> </table>	<p>(a) If your answer is <b>rectangular prism</b> draw the following face.</p>		<p>(b) If your answer is <b>cube</b> draw the following face.</p>		<p><b>2. Name the polyhedron.</b></p> <div style="text-align: center;"></div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>(a) If your answer is <b>hexagonal pyramid</b> draw the following nose &amp; whiskers.</p> </td> <td style="width: 50%; text-align: center; padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>(b) If your answer is <b>hexagonal prism</b> draw the following nose &amp; whiskers.</p> </td> <td style="text-align: center; padding: 5px;"></td> </tr> </table>	<p>(a) If your answer is <b>hexagonal pyramid</b> draw the following nose &amp; whiskers.</p>		<p>(b) If your answer is <b>hexagonal prism</b> draw the following nose &amp; whiskers.</p>		<p><b>3. Name the polyhedron.</b></p> <div style="text-align: center;"></div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>(a) If your answer is <b>triangular prism</b> draw the following body, tail &amp; mouse hole.</p> </td> <td style="width: 50%; text-align: center; padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>(b) If your answer is <b>square pyramid</b> draw the following body, tail &amp; mouse hole.</p> </td> <td style="text-align: center; padding: 5px;"></td> </tr> </table>	<p>(a) If your answer is <b>triangular prism</b> draw the following body, tail &amp; mouse hole.</p>		<p>(b) If your answer is <b>square pyramid</b> draw the following body, tail &amp; mouse hole.</p>	
<p>(a) If your answer is <b>rectangular prism</b> draw the following face.</p>														
<p>(b) If your answer is <b>cube</b> draw the following face.</p>														
<p>(a) If your answer is <b>hexagonal pyramid</b> draw the following nose &amp; whiskers.</p>														
<p>(b) If your answer is <b>hexagonal prism</b> draw the following nose &amp; whiskers.</p>														
<p>(a) If your answer is <b>triangular prism</b> draw the following body, tail &amp; mouse hole.</p>														
<p>(b) If your answer is <b>square pyramid</b> draw the following body, tail &amp; mouse hole.</p>														
<p><b>4. Name the polyhedron for the net below.</b></p> <div style="text-align: center;"></div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>(a) If your answer is <b>square pyramid</b> draw the following cheese in the center of the floor.</p> </td> <td style="width: 50%; text-align: center; padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>(b) If your answer is <b>triangular pyramid</b> draw the following cheese in the center of the floor.</p> </td> <td style="text-align: center; padding: 5px;"></td> </tr> </table>	<p>(a) If your answer is <b>square pyramid</b> draw the following cheese in the center of the floor.</p>		<p>(b) If your answer is <b>triangular pyramid</b> draw the following cheese in the center of the floor.</p>		<p><b>5. Name the polyhedron for the net below.</b></p> <div style="text-align: center;"></div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>(a) If your answer is <b>rectangular pyramid</b> draw the following cheese in the bottom, left corner.</p> </td> <td style="width: 50%; text-align: center; padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>(b) If your answer is <b>cube</b> draw the following cheese in the bottom, left corner.</p> </td> <td style="text-align: center; padding: 5px;"></td> </tr> </table>	<p>(a) If your answer is <b>rectangular pyramid</b> draw the following cheese in the bottom, left corner.</p>		<p>(b) If your answer is <b>cube</b> draw the following cheese in the bottom, left corner.</p>		<p><b>6. Name the polyhedron for the net below.</b></p> <div style="text-align: center;"></div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>(a) If your answer is <b>triangular pyramid</b> draw the following cheese in the bottom, right corner.</p> </td> <td style="width: 50%; text-align: center; padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>(b) If your answer is <b>triangular prism</b> draw the following cheese in the bottom, right corner.</p> </td> <td style="text-align: center; padding: 5px;"></td> </tr> </table>	<p>(a) If your answer is <b>triangular pyramid</b> draw the following cheese in the bottom, right corner.</p>		<p>(b) If your answer is <b>triangular prism</b> draw the following cheese in the bottom, right corner.</p>	
<p>(a) If your answer is <b>square pyramid</b> draw the following cheese in the center of the floor.</p>														
<p>(b) If your answer is <b>triangular pyramid</b> draw the following cheese in the center of the floor.</p>														
<p>(a) If your answer is <b>rectangular pyramid</b> draw the following cheese in the bottom, left corner.</p>														
<p>(b) If your answer is <b>cube</b> draw the following cheese in the bottom, left corner.</p>														
<p>(a) If your answer is <b>triangular pyramid</b> draw the following cheese in the bottom, right corner.</p>														
<p>(b) If your answer is <b>triangular prism</b> draw the following cheese in the bottom, right corner.</p>														
<p><b>7. True or False</b> All solids are polyhedrons.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>(a) If your answer is <b>True</b> draw the following chalkboard in the top, left corner.</p> </td> <td style="width: 50%; text-align: center; padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>(b) If your answer is <b>False</b> draw the following chalkboard in the top, left corner.</p> </td> <td style="text-align: center; padding: 5px;"></td> </tr> </table>	<p>(a) If your answer is <b>True</b> draw the following chalkboard in the top, left corner.</p>		<p>(b) If your answer is <b>False</b> draw the following chalkboard in the top, left corner.</p>		<p><b>8. True or False</b> All polyhedrons are solids.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>(a) If your answer is <b>True</b> draw the chalkboard in the top, right corner.</p> </td> <td style="width: 50%; text-align: center; padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>(b) If your answer is <b>False</b> draw the chalkboard in the top, right corner.</p> </td> <td style="text-align: center; padding: 5px;"></td> </tr> </table>	<p>(a) If your answer is <b>True</b> draw the chalkboard in the top, right corner.</p>		<p>(b) If your answer is <b>False</b> draw the chalkboard in the top, right corner.</p>		<p><b>9. True or False</b> The net below will form a polyhedron.</p> <div style="text-align: center;"></div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>(a) If your answer is <b>True</b> write the following vocabulary words in the box.</p> </td> <td style="width: 50%; text-align: center; padding: 5px;"><b>Pyramids</b></td> </tr> <tr> <td style="padding: 5px;"> <p>(b) If your answer is <b>False</b> write the following vocabulary word in the box.</p> </td> <td style="text-align: center; padding: 5px;"><b>Prisms</b></td> </tr> </table>	<p>(a) If your answer is <b>True</b> write the following vocabulary words in the box.</p>	<b>Pyramids</b>	<p>(b) If your answer is <b>False</b> write the following vocabulary word in the box.</p>	<b>Prisms</b>
<p>(a) If your answer is <b>True</b> draw the following chalkboard in the top, left corner.</p>														
<p>(b) If your answer is <b>False</b> draw the following chalkboard in the top, left corner.</p>														
<p>(a) If your answer is <b>True</b> draw the chalkboard in the top, right corner.</p>														
<p>(b) If your answer is <b>False</b> draw the chalkboard in the top, right corner.</p>														
<p>(a) If your answer is <b>True</b> write the following vocabulary words in the box.</p>	<b>Pyramids</b>													
<p>(b) If your answer is <b>False</b> write the following vocabulary word in the box.</p>	<b>Prisms</b>													

**Directions:** Solve each problem and **COLOR** the object that corresponds with your answer.

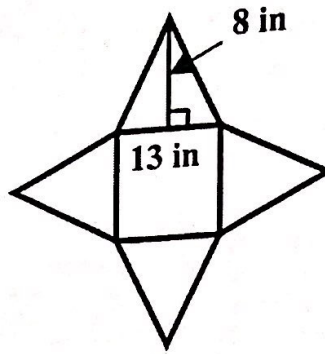


10. Find the surface area.



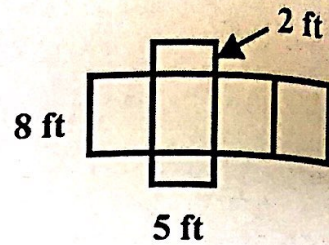
- (a) If your answer is **332 sq. ft** outline all the #'s & words in blue.  
 (b) If your answer is **166 sq. ft** outline all the #'s & words in red.

11. Find the surface area.



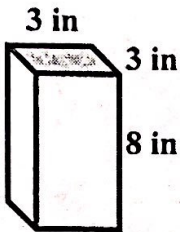
- (a) If your answer is **420 sq. in** color the chalkboards green & the chalk red.  
 (b) If your answer is **260 sq. in.** leave the chalkboards white & color the chalk blue.

12. Find the surface area.



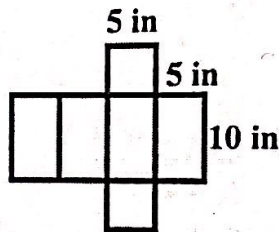
- (a) If your answer is **180 sq. ft** color the inside of the ears pink.  
 (b) If your answer is **108 sq. ft** color the inside of the ears apricot.

13. Find the volume.



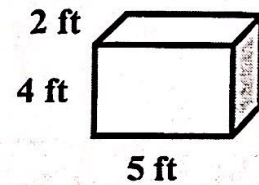
- (a) If your answer is **72 cubic in** color the face, body & tail grey.  
 (b) If your answer is **24 cubic in** color the face, body & tail brown.

14. Find the volume.



- (a) If your answer is **100 cubic in** color the eyes green.  
 (b) If your answer is **250 cubic in** color the eyes blue.

15. Find the volume.



- (a) If your answer is **40 cubic ft** color the nose & whiskers black.  
 (b) If your answer is **22 cubic ft** color the nose pink & the whiskers grey.

16. Jill wants to know how much water it will take to fill her aquarium. Will she need to find the surface area or the volume?

- (a) If your answer is **Surface Area** color the triangular prism cheese yellow and the other two pieces orange.  
 (b) If your answer is **Volume** color the rectangular prism cheese yellow and the other two pieces orange.

17. Kyle wants to paint the outside of a box. Will he need to find the surface area or the volume to determine how much paint he should buy?

- (a) If your answer is **Surface Area** color the ground brown.  
 (b) If your answer is **Volume** leave the ground white.

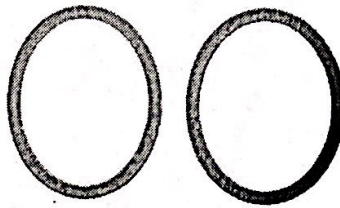
18. Mason is building a garden and he needs to fill up the garden box with soil. Will he need to find the surface area or volume to determine how much soil to buy?

- (a) If your answer is **Surface Area** color a brown, brick wall.  
 (b) If your answer is **Volume** color a red, brick wall.

**Artistic Tip:** When you are done coloring, it looks nice to outline the major features using a black crayon or marker.



# Facing Math Vocabulary...





# AREA SOLVE AND COLOR

Solve each problem. Then, find the answer and color it the corresponding color.

<p><b>1</b></p>	<p><b>2</b> Find the area of the shaded region.</p>	<p><b>3</b> Find the area of the trapezoid below.</p>	<p><b>4</b> Find the area of the composite figure.</p> <p><i>*hint: make parallelogram + rectangle</i></p>
<p><b>5</b> Find the area of the shaded region.</p>	<p><b>6</b></p>	<p><b>7</b> Find the area of the triangle below.</p>	<p><b>8</b></p>
<p><b>9</b> Find the area of the composite figure.</p>	<p><b>10</b> Determine the missing dimension if the area is <math>85 \text{ in}^2</math>.</p>	<p><b>11</b> Find the area of the composite figure.</p>	<p><b>12</b> Find the area of a rectangle with a length of 13 feet and a width of 8 feet.</p>
<p><b>13</b> Find the area of the composite figure.</p>	<p><b>14</b></p>	<p><b>15</b> Find the area of the shaded region.</p>	<p><b>16</b> Find the area of the trapezoid below.</p>

RED	YELLOW	PINK	BLUE	LIGHT GREEN	ORANGE	DARK GREEN	PURPLE
$5 \text{ in}^2$	$90 \text{ m}^2$	$132 \text{ ft}^2$	$56 \text{ cm}^2$	$300 \text{ yd}^2$	$90 \text{ cm}^2$	$175 \text{ m}^2$	$8.5 \text{ in}$
$104 \text{ ft}^2$	$88 \text{ in}^2$	$54 \text{ cm}^2$	$256 \text{ ft}^2$	$100 \text{ in}^2$	$45 \text{ cm}^2$	$187.5 \text{ ft}^2$	$20.4 \text{ m}^2$







Name \_\_\_\_\_ Date \_\_\_\_\_

### What's My Area?

Find the area of this figure in square millimeters. Measure each segment to the nearest millimeter.

