Brandon Valley School District

District Learning Plan

April 27-May 1, 2020

Grade 6 Math

Brandon Valley School District Distance Learning Plan

LESSON/UNIT: Geometry **SUBJECT/GRADE: 6th Grade Math** **DATES: 4/27-5/01**

What do students need to do? **PART ONE link to BV instructional video for week of April 27 - May 1, 2020** **PART TWO link to BV instructional video for week of April 27 - May 1, 2020**	Monday (4/27): ● Students should look over the provided notes OR watch the **PART ONE** instructional video (link to the left) on finding the **surface area of square pyramids**. Complete the **Pyramid Worksheet Problem #1**. Tuesday (4/28): ● Students should look over the provided notes OR watch the **PART TWO** instructional video (link to the left) on finding the surface area of triangular pyramids. Complete the **Pyramid worksheet Problem #2**. Wednesday (4/29), Thursday (4/30), and Friday (5/01): ● Students should look over the provided notes (from last week and this week) and rewatch previous instructional videos to complete the **Surface Area worksheet.** The previous instructional videos can be found in the archived distance learning plans. Click on the link located at the bottom of the distance learning page.
What do students need to bring back to school?	1. Pyramid Worksheet 2. Surface Area Worksheet
What standards do the lessons cover?	6.G.A. Solve real-world and mathematical problems involving area, surface area, and volume. 3. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems. 4. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
What materials do students need? What extra resources can students use?	Need: ● worksheets (see PDF documents below) Extra: ● Multiplication Table ○ https://www.mathsisfun.com/tables.html
What can students do if they finish early?	ALEKS topics- https://my.mheducation.com/ *Continue working your topics *QuickTables (math fact practice) *assignments (if your teacher has assigned them) Khan Academy- https://www.khanacademy.org/math Find a rectangular prism in your house (cereal box, toy chest, etc). Figure out how much wrapping paper (surface area) would be needed to cover all sides of the prism. Take a picture of the item. Send the picture and work to your teacher. If it's nice outside, GO OUTSIDE and see how many rectangular prisms you can find!

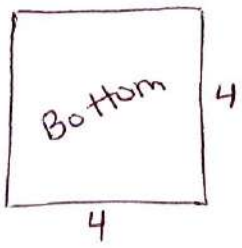
Who can we contact if we have questions?	**Brandon Valley Intermediate School** **Principal**- Mr. Skibsted- Nick.Skibsted@k12.sd.us **Assistant Principal**- Mr. Pearson- Rick.Pearson@k12.sd.us **Math Teachers:** Ms. VanRoekel: Rebecca.VanRoekel@k12.sd.us (blue team) Ms. Lewis: Layne.Lewis@k12.sd.us (white team) Ms. Wiese: Stacey.Wiese@k12.sd.us (red team) Mr. Kocer: Cassius.Kocer@k12.sd.us (silver team)
Notes: Worksheets do not have to be printed off. Problems can be answered on blank or lined paper. The math textbook can also be accessed online at https://my.mheducation.com/login.	

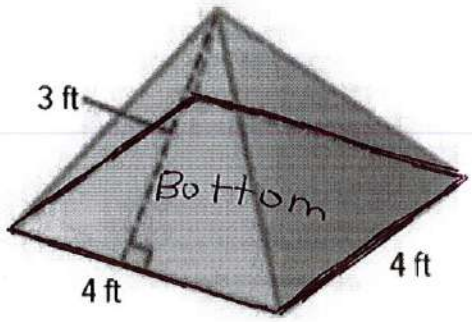
Instructional materials are posted below (if applicable)

Brandon Valley School District

Step-by-Step Guide to finding surface area of a Square Pyramid as demonstrated in the video.

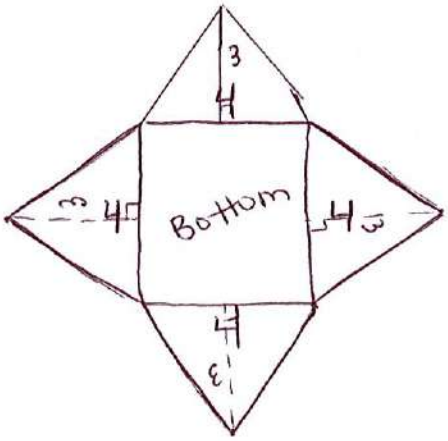
Create the net in the area below. Label the dimensions. Then find the surface area.

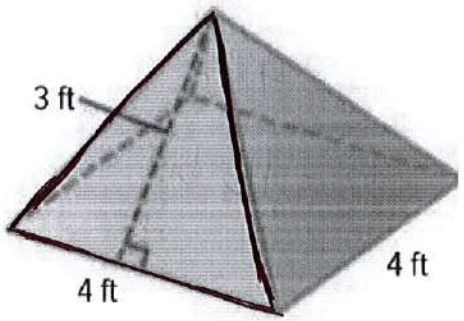




* square pyramids have 5 faces or sides
  - 1 square
  - 4 congruent triangles

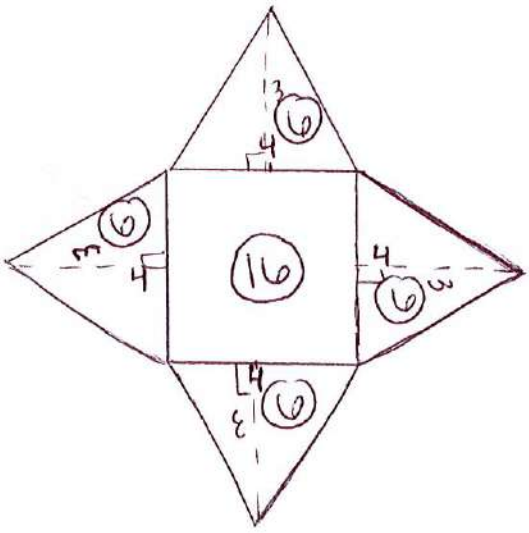
Create the net in the area below. Label the dimensions. Then find the surface area.

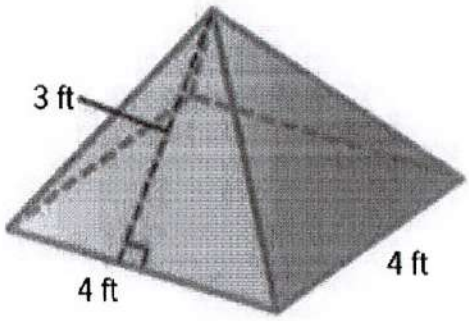




* each triangle is the same

Now that the net is completed, find the area of each surface. Then add the values together to find the total surface area.





Bottom

$A = b \cdot h$

$= 4 \cdot 4$

$= 16 \text{ ft}^2$

Triangular Faces

$A = b \cdot h \div 2$

$= 4 \cdot 3 \div 2$

$= 12 \div 2$

$= 6 \text{ ft}^2$

* All 4 triangles are the same.

Add all values:

$16 + 6 + 6 + 6 + 6$

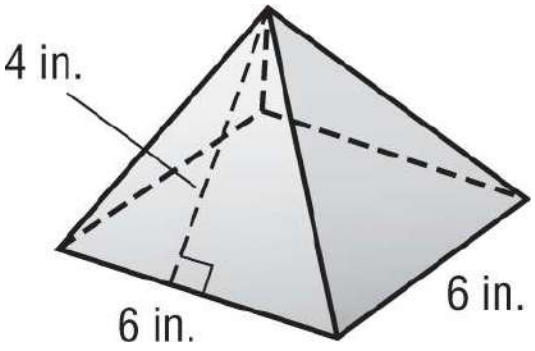
$= 16 + 12 + 12$

$= \boxed{40 \text{ ft}^2}$

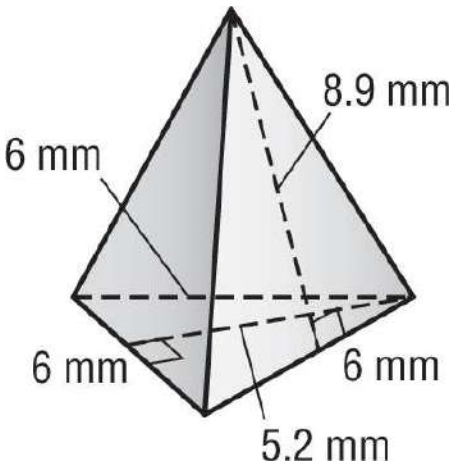
Pyramid Worksheet **Name _____**

Create the net in the area below. Label the dimensions. Then find the surface area.

1.

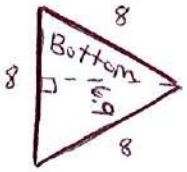


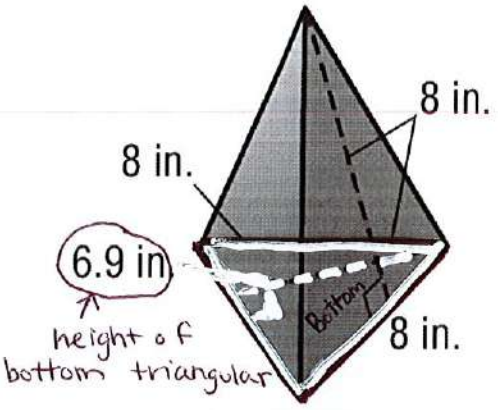
2.



Step-by-Step Guide to finding surface area of a Triangular Pyramid as demonstrated in the video.

Create the net in the area below. Label the dimensions. Then find the surface area.





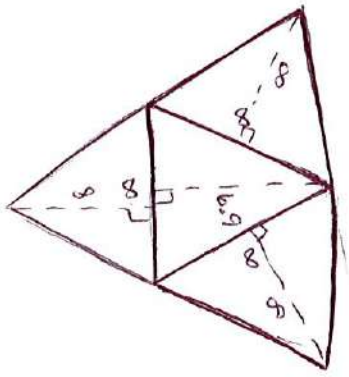
Bottom

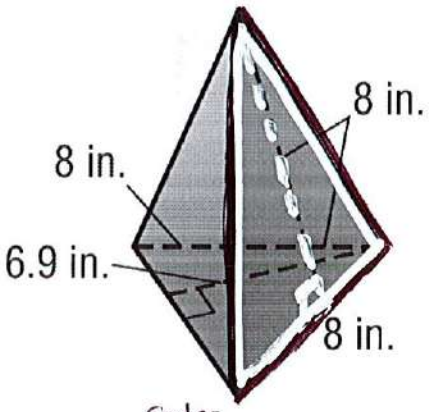
base = 8 in

height = 6.9 in

* triangular pyramids have 4 faces
  - 1 triangular base
  - 3 triangular sides

Create the net in the area below. Label the dimensions. Then find the surface area.



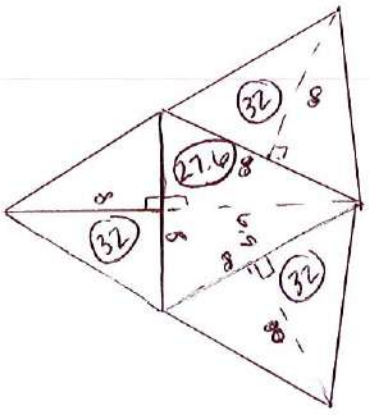


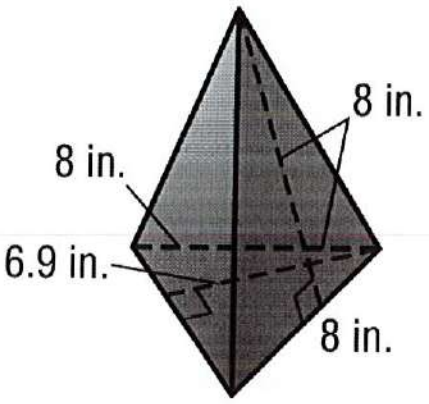
Sides

base = 8 in

height = 8 in

Create the net in the area below. Label the dimensions. Then find the surface area.





Bottom

$A = b \cdot h \div 2$

$= 8 \cdot 6.9 \div 2$

$= 27.6 \text{ in}^2$

Sides

$A = b \cdot h \div 2$

$= 8 \cdot 8 \div 2$

$= 32 \text{ in}^2$

* the 3 side triangles are the same.

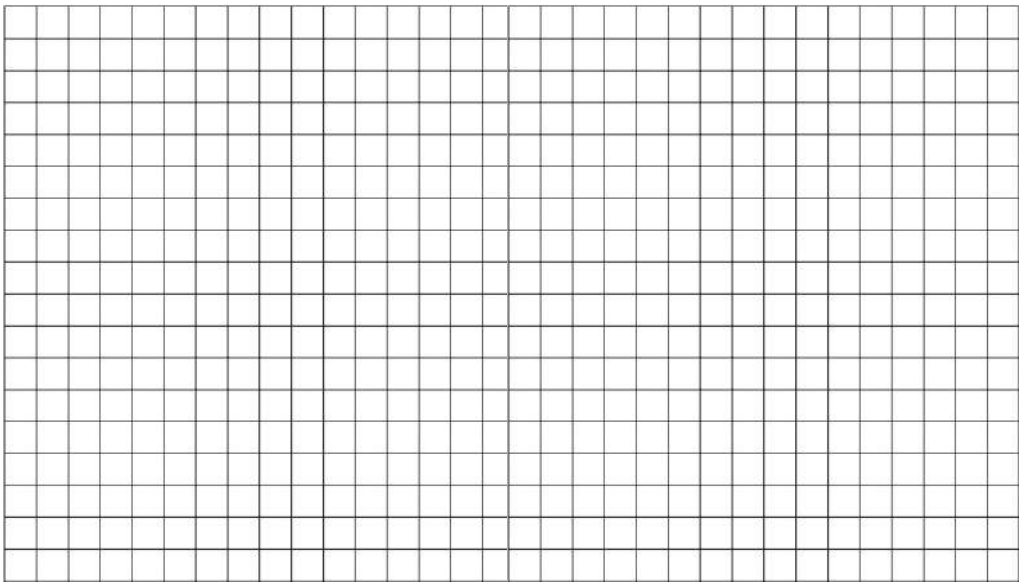
Surface Area = $27.6 + 32 + 32 + 32$

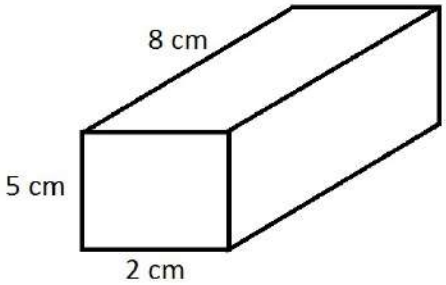
$= \boxed{123.6 \text{ in}^2}$

Surface Area Worksheet **Name** _____

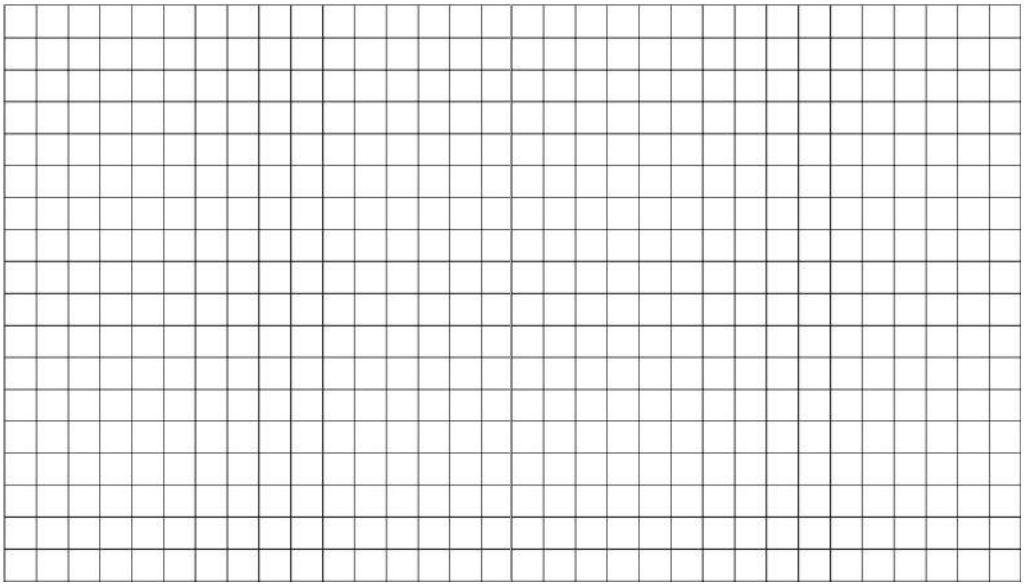
Create the net for each three-dimensional figure. Then find the surface area.

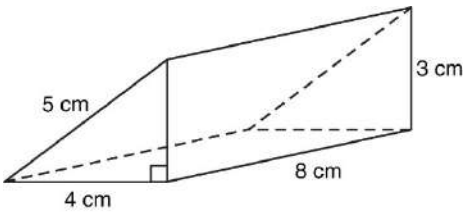
1.





2.





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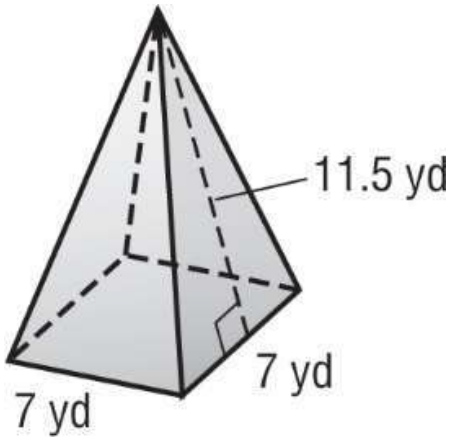

4.