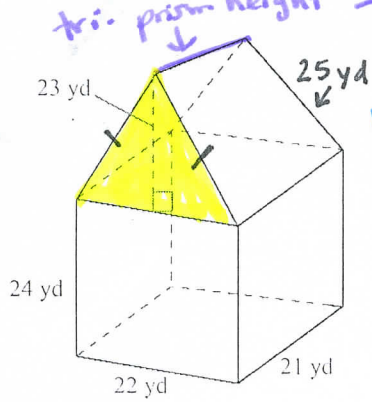
Name: key Period: _____ Date: _____

Chapter 13 Study Guide **Math 7** Show all work & include proper units!

- Find the volume and surface area of the composite figure.



Total SA = 1556 + 2526

4,082 yd²

1. Work for Volume:

Triangular Prism

$V = Bh$

$V = \frac{1}{2}bh \cdot$ prism height

$V = \frac{1}{2}(22)(23) \cdot 21$

$V = 5,313 \text{ yd}^3$

Rectang. Prism

$V = Bh$

$V = l \cdot w \cdot h$

$V = 21(22)(24$

$V = 11,088$

Total Volume = 5,313 + 11,088

Total V = 16,401 yd³

1. Work for Surface Area:

Top (Triangular Prism)

2 triangles: $A = 2 \cdot \frac{1}{2} \cdot b \cdot h$

$A = b \cdot h$

$A = 22 \cdot 23$

$A = 506$

Right Rect + Left Rect.

$A = 2 \cdot l \cdot w$

$A = 2(25)(21)$

$A = 2(525)$

$A = 1050$

SA of Tri. prism (without bottom):

SA = 506 + 1050

SA = 1,556 yd²

Bottom (Rectangular Prism)

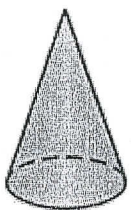
Bottom	Front + Back	Left + Right
$A = l \cdot w$	$A = 2 \cdot l \cdot w$	$A = 2 \cdot l \cdot w$
$A = 21(22)$	$A = 2(22)(24)$	$A = 2(21)(24)$
$A = 462$	$A = 1,056$	$A = 1008$

SA of rect. prism (without the top):

SA = 462 + 1056 + 1008 = 2526 yd²

Classify the solid. Tell whether it is a polyhedron. If so, count the number of faces, edges, and vertices.

2.



Cone

not a polyhedron