Geometry Pre–AP Rev 2014
Review Sheet for Test 3–4

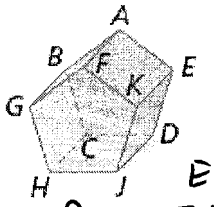
Mathematician: Key
Date: _____ Period: _____

Equations:

	Lateral Surface Area	Total Surface Area	Volume
Prism	$L=Ph$ $P=2l+2w$	$S=Ph+2B$	$V=Bh$ (lwh)
Pyramid	$L=\frac{1}{2}Pl$	$S=\frac{1}{2}Pl+B$	$V=\frac{1}{3}Bh$
Cylinder	$L=2\pi rh$	$S=2\pi rh+2\pi r^2$	$V=\pi r^2h$
Cone	$L=\pi rl$ (slant height)	$S=\pi rl+\pi r^2$	$V=\frac{1}{3}\pi r^2h$
Sphere	~~$S=4\pi r^2$~~ n/a	$S=4\pi r^2$	$V=\frac{4}{3}\pi r^3$

(Sect 10-1) Identify the figure and the amount faces, vertices, and bases there are.

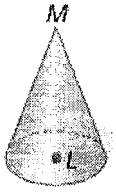
1)



Edges: 15

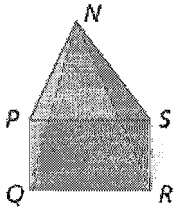
Pentagonal Prism, F: 7, V: 10, B: 2

2)



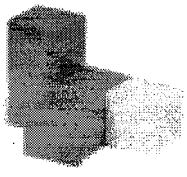
Cone
F: None
E: None
B: 1
V: 1

3)



Rect Pyramid
F: 5
V: 5
E: 8
B: 1

4) Draw all six orthographic views of the given object. Assume there are no hidden cubes. (Top, Bottom, etc…)

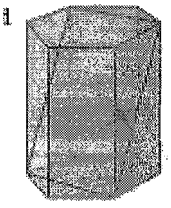


T: 
Bottom 

F: 
Back 

L: 
R: 

5) A regular hexagonal prism is intersected by a plane as shown. What type of cross section is it?



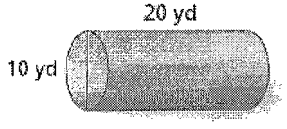
Rectangle, Parallelogram

6) A square pyramid has a base with a side length of 9 centimeters and a slant height that is 4 centimeters more than 1.5 times the length of the base. What is the surface area of the pyramid? $396\ cm^2$

7) The right cone has a surface area of 240π square millimeters and a slant height of 22 mm. What is the radius of the cone? 8mm

Find the lateral and/or total surface area of the following:

8)



LA: $200\pi\ yds^2$

TSA: $250\pi\ yds^2$

9) A regular pentagonal prism with height 8 cm and base edge length 4 cm

LA: $160\ cm^2$

TSA: $215.1\ cm^2$

10) A square pyramid with side length 15 ft and slant height 21 ft

LA: $630\ ft^2$

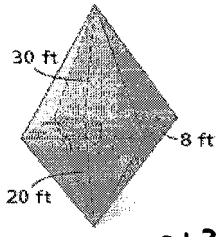
TSA: $855\ ft^2$

11) A cone with diameter 20 in. and slant height 15 in.

LA: $150\pi\ in^2$

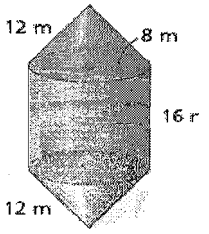
TSA: $250\pi\ in^2$

12) Total surface area:



$S = 800 ft^2$

13) Total surface area:



$S = 448\pi\ m^2$

14) The Great Pyramid of Giza, Egypt, was built around 2580 B.C. as a final resting place for Pharaoh Khufu. At that time it was built, its height was 481 feet. Each edge of the square base was about 756 feet long. What is the lateral surface area of the Great Pyramid?

610 ft

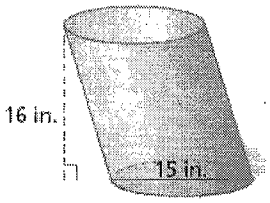
Slant Length: ~~186.3679~~

$LA = \frac{1}{2} Bl$

916,220 ft²

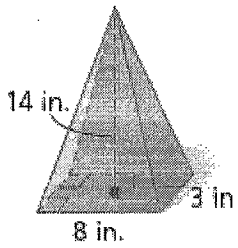
Find the volume of the following:

15)



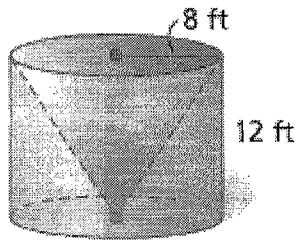
$V = 900\pi$ in³

16)



$V = 112$ in³

17)



$V = 512\pi$ ft³

18) A hexagonal pyramid with base area 42 m^2 and height 8 m

$V = 112$ m³

19) A cone with diameter 12 cm and height 10 cm

$V = 120\pi$ cm³

20) Identify the diameter of a sphere a cone with surface area of 256π ft^2

$d = 16$ ft.

21) Find the volume of a sphere with surface area 100π m^2

$V = \frac{500}{3}\pi$ m³

22) Review the previous test. There will be a spiral review question coming from Test 3-3.