

Geometry Week 3 & 4 – Huntley

Name_____ Period_____

Complete the following packet and return to school by Friday April 24th. Make sure that you Join Remind for our Class so that you can ask questions. Text @Geomh to 81010 to join. YouTube videos are posted for notes and I am happy to answer questions if you send remind message or e-mail. Communication is essential so please make sure you are reading e-mails and remind messages each day.

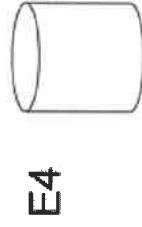
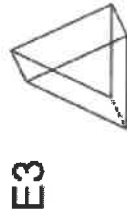
N# / /
 1-1, 11-2, & 11-4 Part 1

Nets, Surface Area & Volume of Cylinders

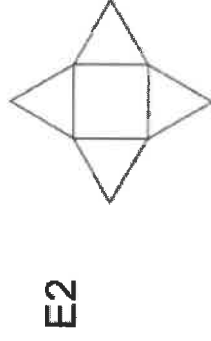
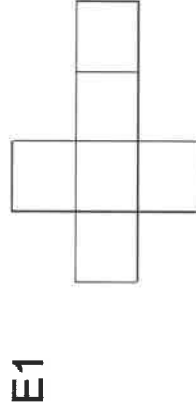
SLG : Students will be able to draw and identify
 nets of 3D figures. Students will be able to find
 the surface area and volume of cylinders.

A# / /
 WS 1-1, 11-2, & 11-4 a

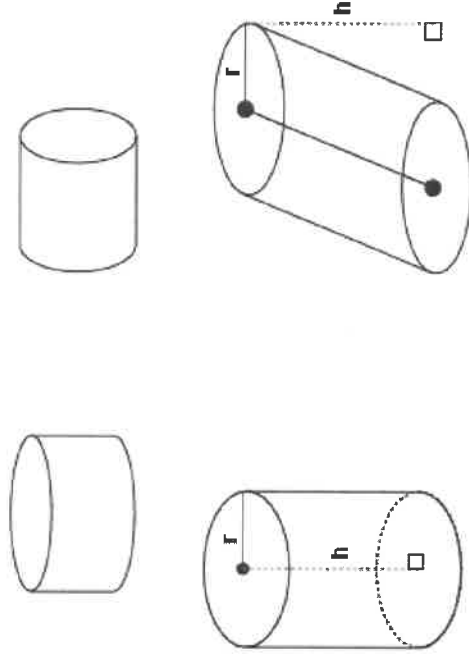
Draw a net for each shape below.



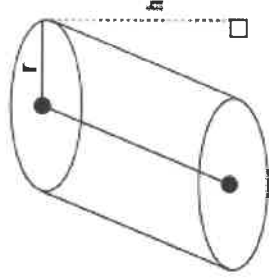
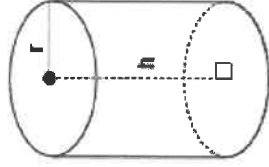
Net – a flattened out three dimensional solid,
 like a cube. When you cut out the "net", fold it
 and glue it together you can see what the three
 dimensional shape looks like.



Cylinder:



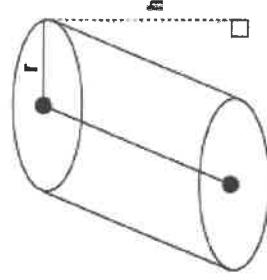
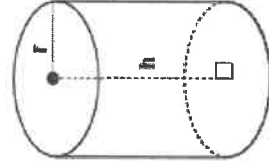
Surface Area of a cylinder:



r = The radius of a base

h = The height of the cylinder

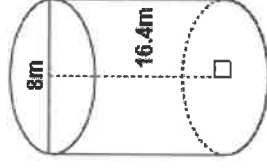
Volume of a cylinder:



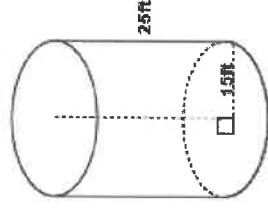
r = The radius of a base

h = The height of the cylinder

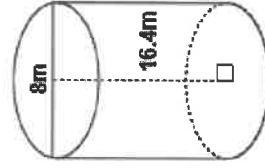
E5 Find the Surface Area of the cylinder.



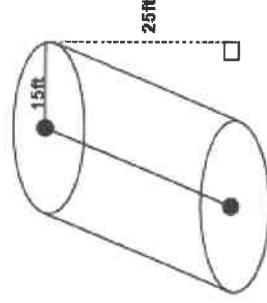
E6 Find the Surface Area of the cylinder.



E7 Find the Volume of the cylinder.



E8 Find the Volume of the cylinder.



N# / /
 1-1, 11-2, & 11-4 Part 1

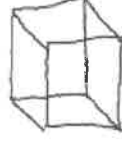
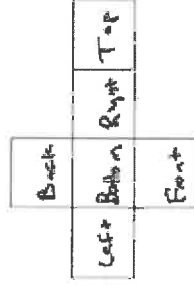
Nets, Surface Area & Volume of Cylinders

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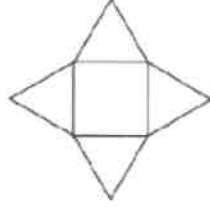
A# / /
 WS 1-1, 11-2, & 11-4 a

Net – a flattened out three dimensional solid,
 like a cube. When you cut out the "net", fold it
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 dimensional shape looks like.

E1

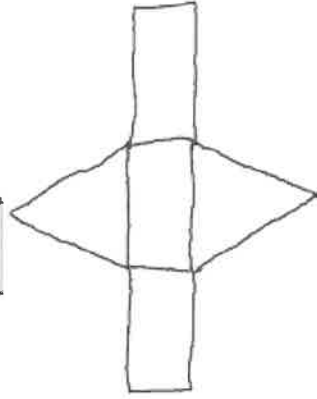
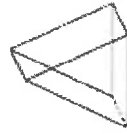


E2

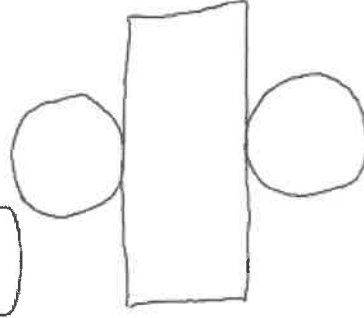
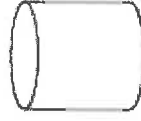


Draw a net for each shape below.

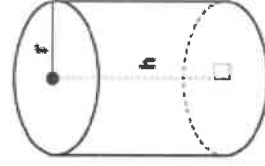
E3



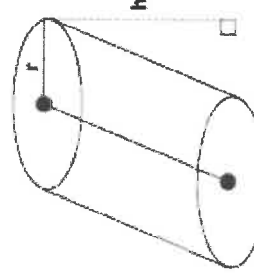
E4



Cylinder:



Right
Cylinder



Oblique
Cylinder

Surface Area of a cylinder:

$$LA = 2\pi r h \text{ (Rectangle = } l \cdot w \text{)}$$

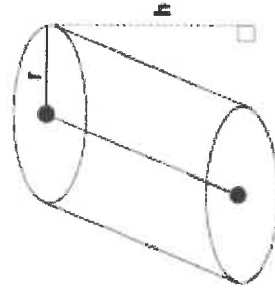
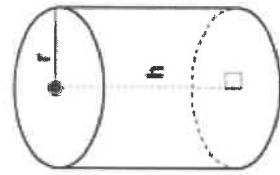
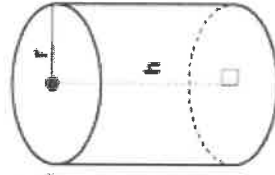
$$2B = 2\pi r^2 \text{ (Top + Bottom)}$$

$$SA = LA + 2B$$

$$SA = 2\pi r h + 2\pi r^2$$

r = The radius of a base

h = The height of the cylinder



Volume of a cylinder:

$$B = \pi r^2$$

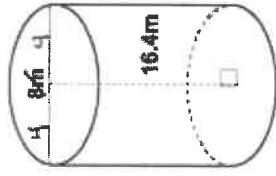
$$V = Bh$$

$$V = \pi r^2 h$$

r = The radius of a base

h = The height of the cylinder

E5 Find the Surface Area of the cylinder.

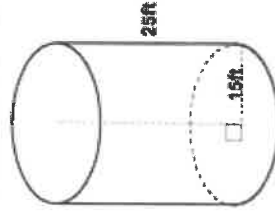


$$LA = 2\pi \cdot 4 \cdot 16.4 = 411.97$$

$$2B = 2\pi \cdot 4^2 = 100.48$$

$$SA = 411.97 + 100.48 = 512.45 \text{ m}^2$$

E6 Find the Surface Area of the cylinder.

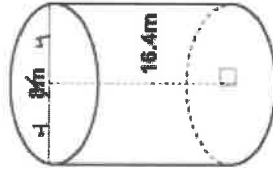


$$LA = 2\pi \cdot 15 \cdot 25 = 2355$$

$$2B = 2\pi \cdot 15^2 = 1413$$

$$SA = 2355 + 1413 = 3768 \text{ ft}^2$$

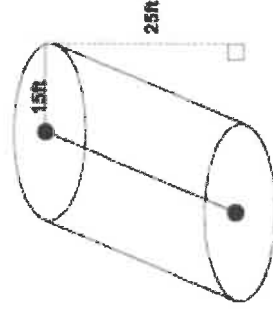
E7 Find the Volume of the cylinder.



$$V = \pi \cdot 4^2 \cdot 16.4 =$$

$$823.9 \text{ m}^3$$

E8 Find the Volume of the cylinder.

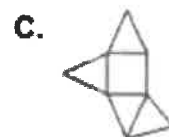
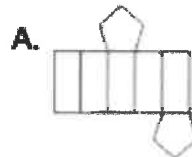


$$V = \pi \cdot 15^2 \cdot 25 = 17662.5 \text{ ft}^3$$

NAME _____ DATE _____ PERIOD _____ A# _____

WS 1-1, 11-2, & 11-4 Part 1

Match each three-dimensional figure with its net.

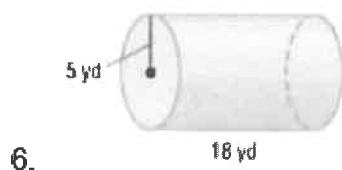


1. _____ 2. _____ 3. _____

Find the lateral surface area & surface area of each cylinder. Round to the nearest tenth.



Find the volume of each cylinder. Round to the nearest tenth.



N# / /

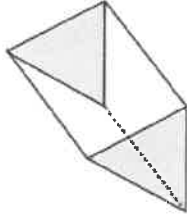
11-2 & 11-4 Part 2

Surface Area & Volume of Prisms

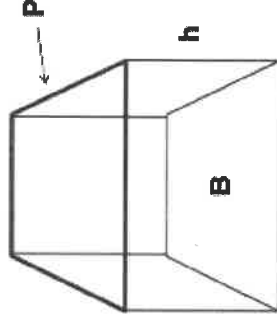
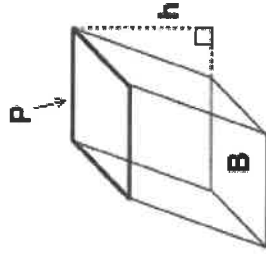
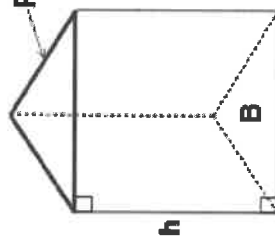
A# / /

WS 11-2 & 11-4 c

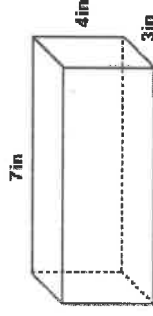
Prism: 2 parallel congruent faces called the bases. **All other faces are parallelograms.** The intersection of 3 edges is a vertex. Prisms are named by the shape of their bases.



Surface Area of a Prism:

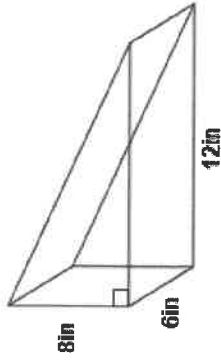


E1 Find the surface area of the prism.

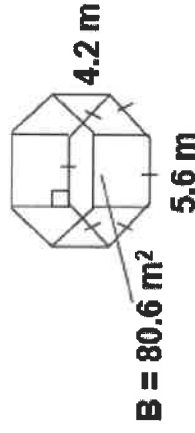


- P= Perimeter
- B= Area of a base
- h= Height of the prism

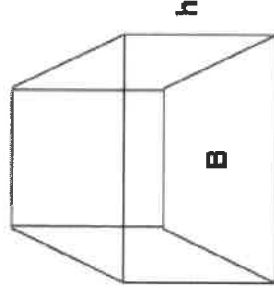
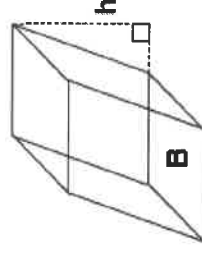
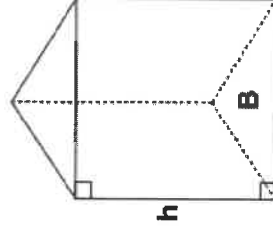
E2 Find the surface area of the prism.



E3 Find the surface area of the prism.



Volume of a Prism:

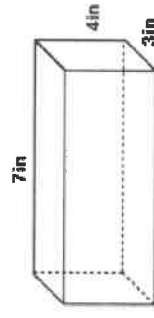


$V = \text{Volume}$

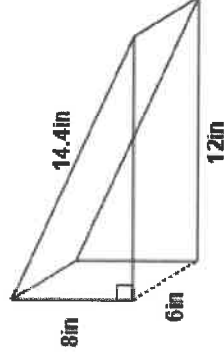
$B = \text{Area of a base}$

$h = \text{Height of the prism}$

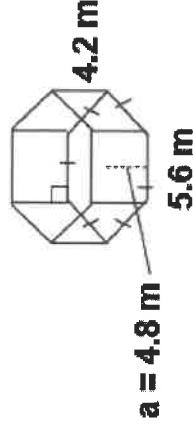
E4 Find the volume of the prism.



E5 Find the volume of the prism.



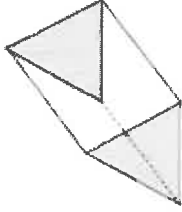
E6 Find the volume of the prism.



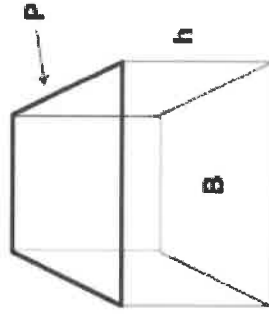
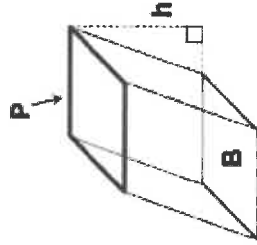
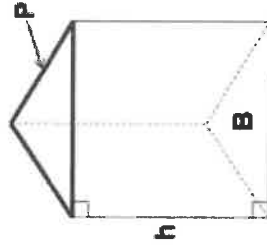
N# / /
 11-2 & 11-4 Part 2
 Surface Area & Volume of
 Prisms

A# / /
 WS 11-2 & 11-4 c

Prism: 2 parallel congruent faces called the bases. **All other faces are parallelograms.** The intersection of 3 edges is a vertex. Prisms are named by the shape of their bases.



Surface Area of a Prism:



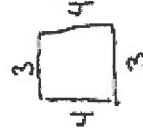
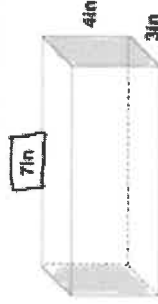
P = Perimeter
 B = Area of a base
 h = Height of the prism

P = Perimeter of Base
 B = Area of Base

$$LA = Ph$$

$$SA = LA + 2B$$

E1 Find the surface area of the prism.



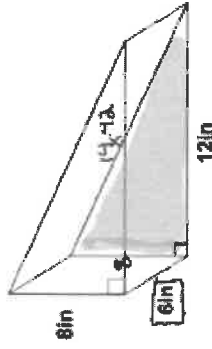
$$P = 3 + 3 + 4 + 4 = 14$$

$$B = 4 \cdot 3 = 12$$

$$LA = 14 \cdot 7 = 98$$

$$SA = 98 + 2(12) = 122 \text{ in}^2$$

E2 Find the surface area of the prism.



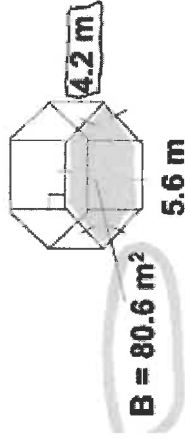
$$P = 8 + 12 + 14.42 = 34.42$$

$$B = \frac{1}{2} \cdot 12 \cdot 8 = 48$$

$$LA = 34.42 \cdot 6 = 206.52$$

$$SA = 206.52 + 2(48) = 302.52 \text{ m}^2$$

E3 Find the surface area of the prism.



$$P = 5.6 + 6 = 33.6$$

$$B = 80.6$$

$$LA = 33.6 \cdot 4.2 = 141.12$$

$$SA = 141.12 + 2(80.6) = 302.3 \text{ m}^2$$

E4 Find the volume of the prism.

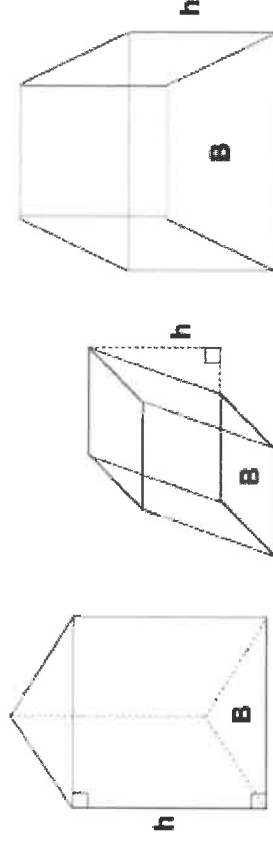


$$B = 4 \cdot 3 = 12$$

$$V = 12 \cdot 7 = 84 \text{ in}^3$$

$$\frac{4}{3}$$

Volume of a Prism:



$$B = \text{Area of Base}$$

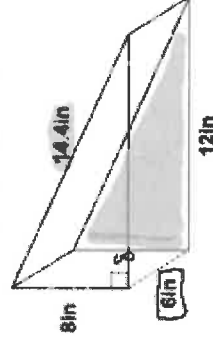
$$V = Bh$$

V= Volume

B= Area of a base

h=Height of the prism

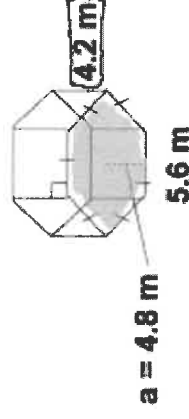
E5 Find the volume of the prism.



$$B = \frac{1}{2} \cdot 12 \cdot 8 = 48$$

$$V = 48 \cdot 6 = 288 \text{ in}^3$$

E6 Find the volume of the prism. $P = 5.6 \cdot 6 = 33.6$



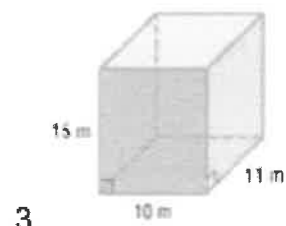
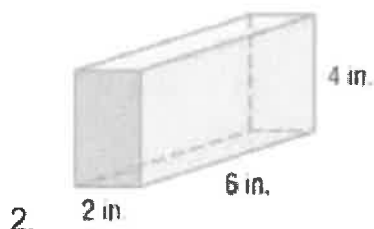
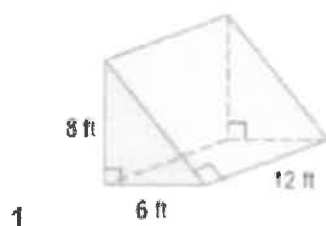
$$B = \frac{1}{2} \cdot 4.8 \cdot 5.6 = 13.44$$

$$V = 13.44 \cdot 4.2 = 56.448 \text{ m}^3$$

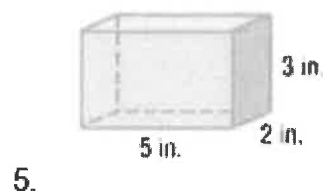
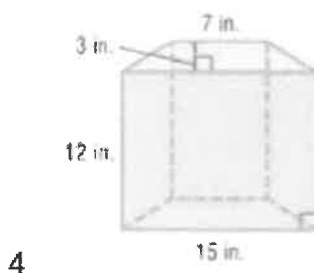
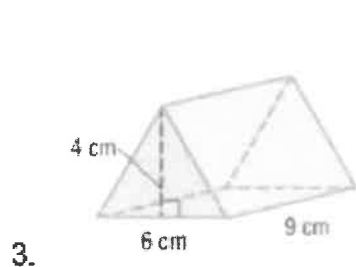
NAME _____ DATE _____ PERIOD _____ A# _____

WS 11-2 & 11-4 Part 2

Find the lateral surface area & surface area of each prism. Round to the nearest tenth if necessary.



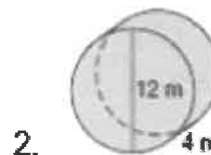
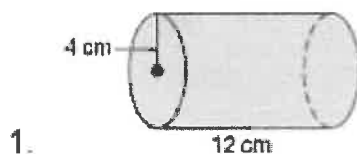
Find the volume of each prism. Round to the nearest tenth if necessary.



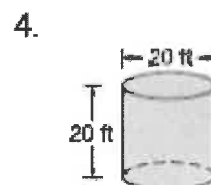
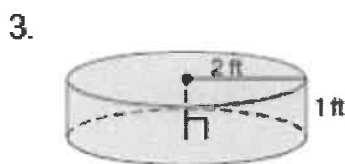
NAME _____ DATE _____ PERIOD _____ A# _____

RWS 11-2 & 11-4

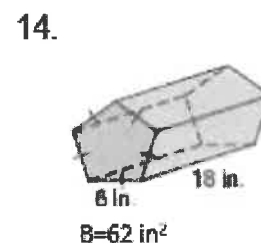
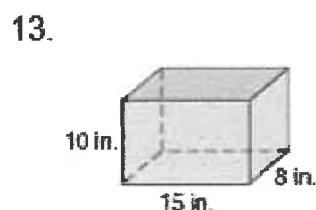
Find the lateral surface area & surface area of each cylinder. Round to the nearest tenth.



Find the volume of each cylinder. Round to the nearest tenth.



Find the lateral surface area & surface area of each prism. Round to the nearest tenth if necessary.



Find the volume of each prism. Round to the nearest tenth if necessary.

