

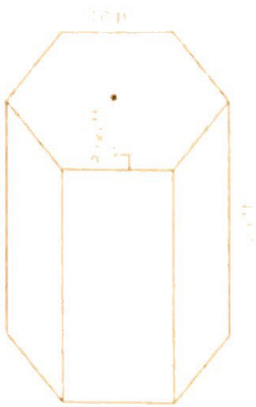
8.10 Regular Polygonal Prisms

$$V = Bh$$

$$V = \frac{1}{2} a p \cdot h$$

Name: Key

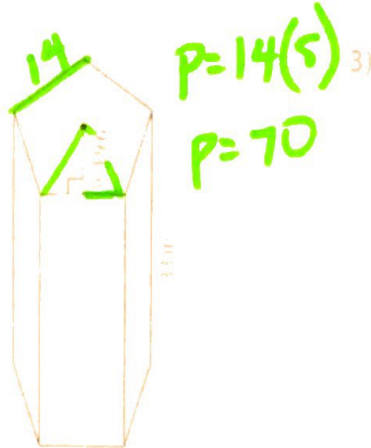
1) $p = 10(6)$
 $p = 60$



Volume = 6495 ft³

$$V = \left(\frac{1}{2}\right)(8.46)(60)(25)$$

2)



$p = 14(5)$
 $p = 70$

Volume = 11122.65 in³

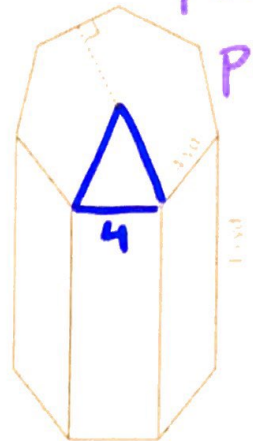
$$V = \left(\frac{1}{2}\right)(9.63)(70)(33)$$

① $\frac{360}{5} = 72^\circ$

② $\tan 36^\circ = \frac{x}{9.63}$
 $9.63 \tan 36^\circ = x$

③ $7 \times 2 = 14$

$P = 4(7)$
 $P = 28$



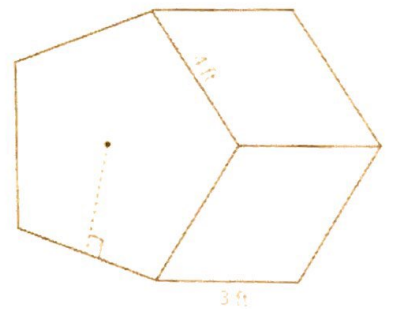
Volume = 929.6 yd³

$$V = \left(\frac{1}{2}\right)(4.15)(28)(16)$$

① $\frac{360}{4} = 90^\circ$

② $\tan 25.72^\circ = \frac{2}{x}$

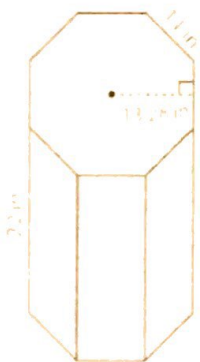
③ $\frac{2}{\tan 25.72} = 4.15$



Volume = 82.5 ft³

$a = 2.75$
 $P = 20$
 $h = 3$

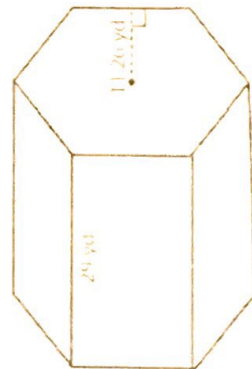
4)



Volume = 12855.04 in³

$a = 13.28$
 $P = 88$
 $h = 22$

5)



Volume = 12735.06 yd³

$a = 11.26$
 $P = 78$
 $h = 29$

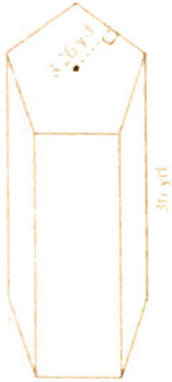
8.10 Regular Polygonal Prisms

$$V = Bh$$

$$V = \frac{1}{2}ap \cdot h$$

Name: _____

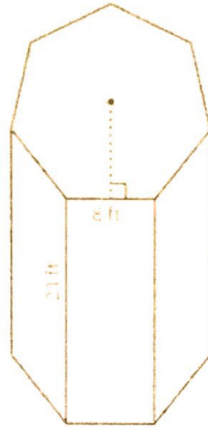
7)



Volume = 8920.8 yd³

$a = 8.26$
 $P = 60$
 $h = 30$

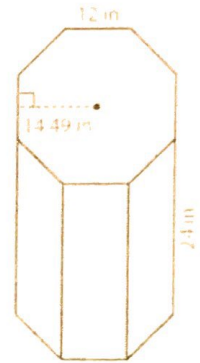
8)



Volume = 4886.28 ft³

$a = 8.31$
 $P = 56$
 $h = 21$

9)



Volume = 16692.48 in³

$a = 14.49$
 $P = 96$
 $h = 24$