Geometry Thurs. 4-11-13 CLASS NOTES

④ $m = ?$ $\quad m = \frac{1}{2}(b_1 + b_2)$

ID1 $\quad (2x+3) \quad 2x+3 = \frac{1}{2}[(3x-2)+(16)]$

$2(2x+3) = \frac{1}{2}[3x+14] \cdot 2$

$4x+6 = 3x+14$

$-3x-6 \quad -3x-6$

$x = 8$

$x = 2(8)+3 = 19$

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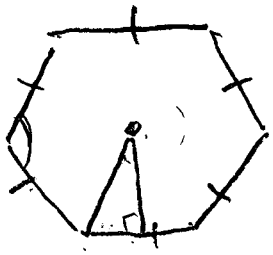
(22)



6 SIDES $\Rightarrow A_{\text{Reg. POLY}} = \frac{1}{2} a P$

$= \frac{1}{2} a \, 48 \text{ YDS}$

$\theta = \frac{360}{12} = 30$

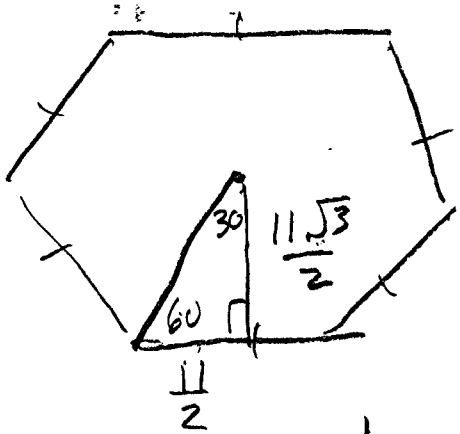
$\sqrt{3} = \frac{1}{2}(4\sqrt{3})48$

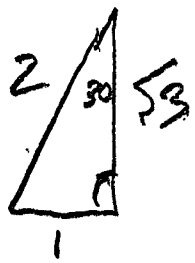
$A = 96\sqrt{3} \text{ YD}^2$

$A = 96(1.7321)$

$A = 166.3 \text{ YD}^2$

(20) $A = ?$





$\leftarrow 11 \rightarrow \quad P = 66$

$$A = \frac{1}{2}\left(\frac{11\sqrt{3}}{2}\right)66 = \frac{363\sqrt{3}}{2}$$

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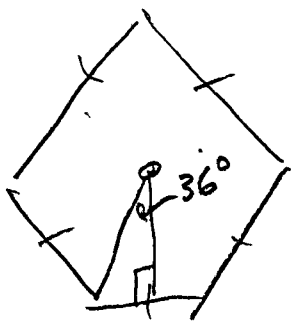
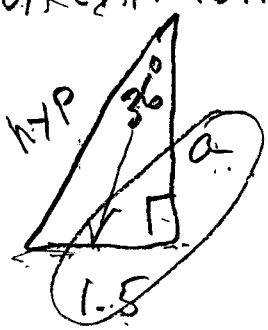
(22)



SOH CAH TOA



$P = 15A$

SIDE $= 3A$

$$A = \frac{1}{2} a P$$

$$= \frac{1}{2}(2.0647)15$$

$$= 15.485$$

$A = 15.5$

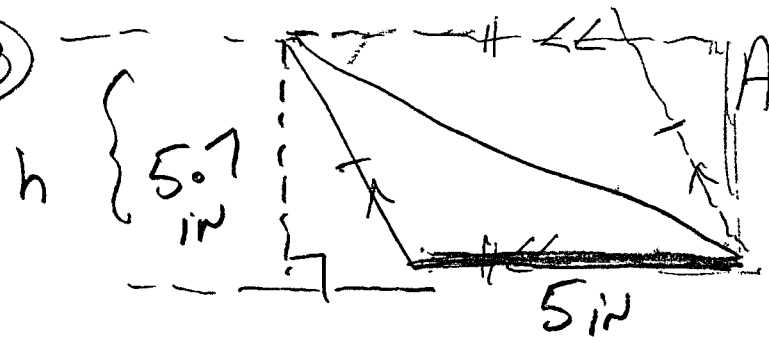
$$a \tan 36 = \frac{1.5}{a} \cdot a$$

$$\frac{a \tan 36}{\tan 36} = \frac{1.5}{\tan 36}$$

$$a = \frac{1.5}{.7265}$$

$a = 2.0647$

(18)



$A = \frac{1}{2}bh$

$A = \frac{1}{2}(5)(5.7) = \frac{28.5}{2}$

$A = 14.25\ in^2$

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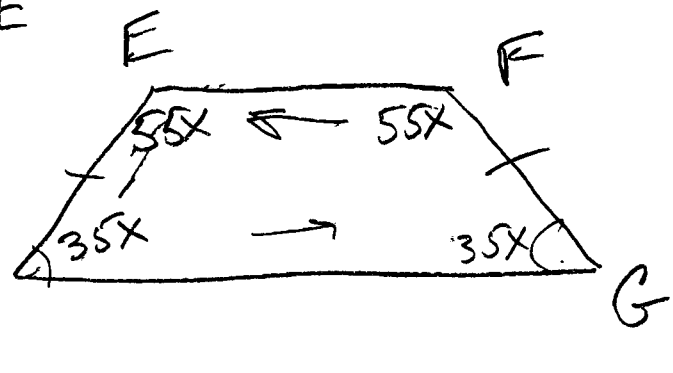
(8) $m\angle E$



ISOSCELES TRAPEZOID

$55x + 35x = 180^\circ$

$\frac{90x}{90} = \frac{180^\circ}{90} = 2$

$x = 2$

$m\angle E = 55(2) = 110^\circ$

(25) $V = ?$ PENTAGONAL pyramid

ID 2

$V = \frac{1}{3} B h$ $\quad a = 4.1$, $p = 30$ IN

area ⇓

$V = \frac{1}{3}\left(\frac{1}{2}(4.1)30\right)9$

$V = 3(4.1)(15)$

$V = 45(4.1) = \boxed{184.5 \text{ IN}^3}$

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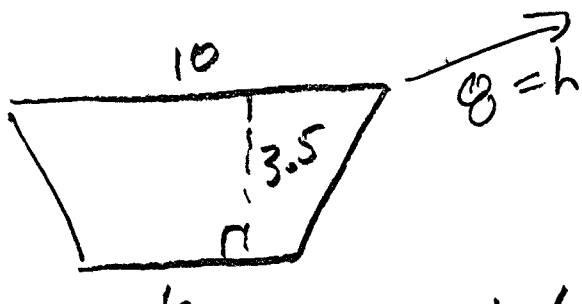
(24) $V = ?$ trapezoidal prism $\Rightarrow V = B h$

NO $\frac{1}{3}$



$\therefore V = (28)8$

$\boxed{V = 224 \text{ YD}^3}$

Base $\Rightarrow A = \frac{1}{2}(b_1 + b_2)h$

$= \frac{1}{2}(10+6)3.5$

$= \frac{1}{2}(16)3.5$

$= 8(3.5) = \boxed{28 \text{ BASE AREA}}$