Year 4 Sem 2 Final Review, Odd

CH 10

① $\frac{360}{12} = 30°$ $\quad 30(3) = \boxed{90°}$ $\quad \frac{3}{12} = \frac{x}{360}$

③ $3x + 20 + 2x + 55 = 180$

$5x + 75 = 180$

$-75 \quad -75$

$\frac{5x}{5} = \frac{105}{5}$

$x = 21$

$3x+20$

$3(21)+20$

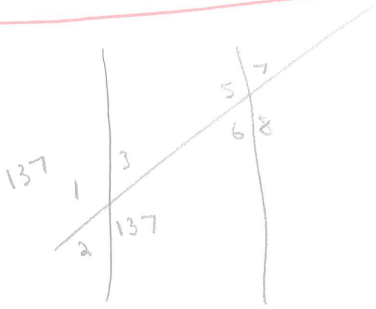
$\boxed{83°}$

$2x+55$

$2(21)+55$

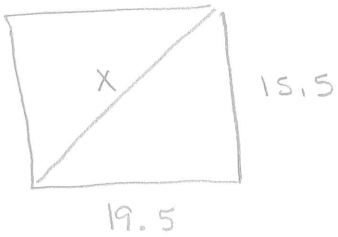
$\boxed{97°}$

⑤



1	137
2	43
3	43
4	------
5	137
6	43
7	43
8	137

⑦



$19.5^2 + 15.5^2 = x^2 = 620.5$

$\boxed{x = 24.9}$ inch

⑨ Sum external angles = 360

$B \rightarrow \quad \frac{360}{6} = \boxed{60°}$

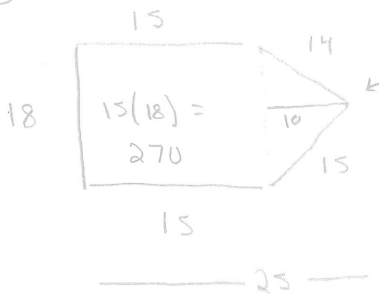
$120 \;/\; 60$

$\boxed{A = 120°}$

or $\frac{180(n-2)}{n} = \frac{180(4)}{6} = 120$

⑪ $25 + 25 + (3+3+4)2 = \boxed{70 \text{ ft}}$

(13) (a)



$A = \frac{1}{2}bh = \frac{1}{2}(18)(10) = 90$

Total Area = 270 + 90 = **360 m^2**

(b) $A_{trap} - A_{Circle}$ $\quad A_{trap} = \frac{1}{2}(42)(48+22) =$ (1470)

= **1089.87 cm^2** $\quad A_{\odot} = \pi(11)^2 =$ (380.13)

(c) $A = b \cdot h = 30(33) =$ **990 ft^2**

(15) (a) $V = \pi r^2 h = \pi(4^2)18 =$ **904.78**

(b) $V = b \cdot w \cdot h = 12(10)14 =$ **1680**

(c) $V = \frac{4}{3}\pi r^3 = \frac{4}{3}\pi(15)^3 =$ **14,137.17**

(d) $V = \frac{1}{3}Bh = \frac{1}{3}(8)(5)6 =$ **80**

(e) $V = \frac{1}{3}Bh = \frac{1}{3}\pi r^2 h = \frac{1}{3}\pi(6^2)12 =$ **452.39**

(f) $V = \frac{\frac{4}{3}\pi r^3}{2} = \frac{\frac{4}{3}\pi(3)^3}{2} =$ **56.55**

TRIG Review, odds

Put Calculator in Degree mode

① $\sin 35° = \frac{x}{6}$

$6(\sin 35) = x$

$3.44 = x$

③ $\cos x° = \frac{6}{13}$

$\cos^{-1}\left(\frac{6}{13}\right) = x°$

$62.51° = x°$

⑤ $x^2 = 3^2 + 5^2 - 2(3)(5)\cos 100°$

$x^2 = 34 - 30\cos 100°$

$= 34 - (-5.209)$

$\sqrt{x^2} = \sqrt{39.209}$

$x = 6.26$

⑦ $6^2 = 8^2 + 7^2 - 2(7)(8)\cos x°$

$36 = 113 - 112\cos x°$

$-113 \quad -113$

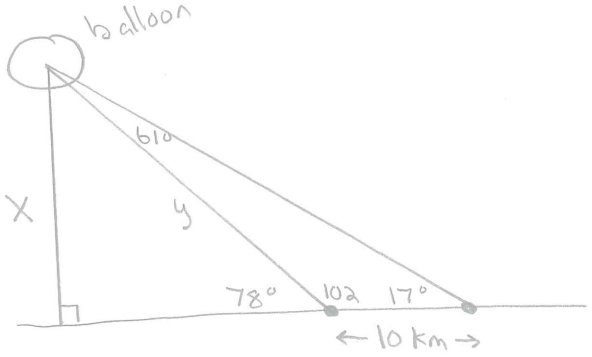
$\frac{-77}{-112} = \frac{-112\cos x°}{-112}$

$.6875 = \cos x°$

$\cos^{-1}(.6875) = x°$

$46.57° = x°$

⑨



$\frac{\sin 17°}{y} = \frac{\sin 61°}{10}$

$y = \frac{10\sin 17°}{\sin 61°} = 3.34$

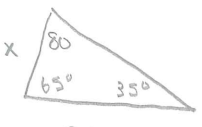
$\sin 78° = \frac{x}{y}$

$\sin 78° = \frac{x}{3.34}$

$3.34\sin 78° = x$

$3.27 = x$

⑪



65
35
100

$\frac{\sin 35°}{x} = \frac{\sin 80°}{36}$

$x = \frac{36\sin 35°}{\sin 80°} = 20.97$ cm