$A = \frac{1}{2}ab\sin C$

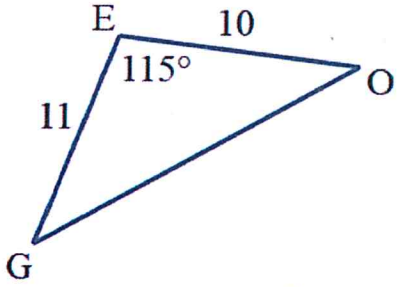
Name Schlansky Need two sides and the included angle Date _____

Mr. Schlansky Geometry

Area of a Triangle

Find the area of the following triangles to the nearest square unit

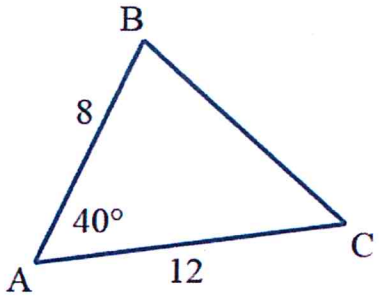
1.



$A = \frac{1}{2}(11)(16)\sin 115$

$A = 80$

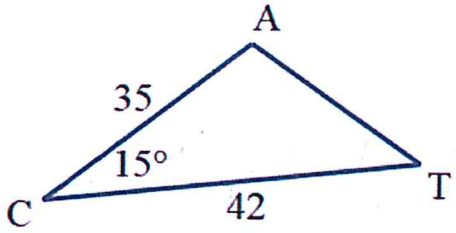
2.



$A = \frac{1}{2}(8)(12)\sin 40$

$A = 31$

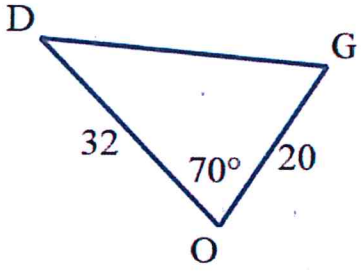
3.



$A = \frac{1}{2}(35)(42)\sin 15$

$A = 190$

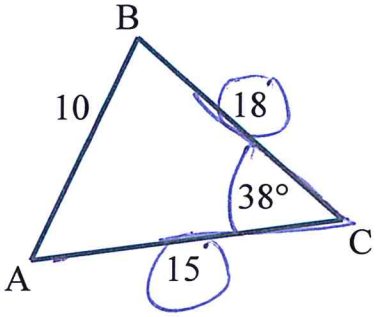
4.



$A = \frac{1}{2}(32)(20)\sin 70$

$A = 301$

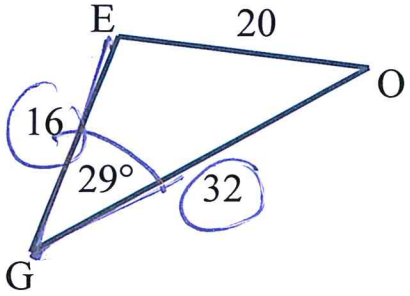
5.



$A = \frac{1}{2}(15)(18)\sin 38$

$A = 83$

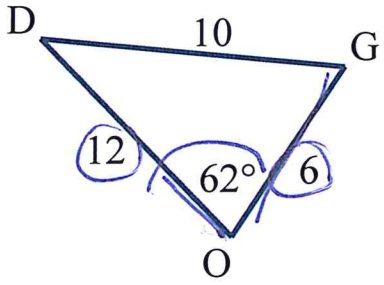
6.



$A = \frac{1}{2}(16)(32)\sin 29$

$A = 124$

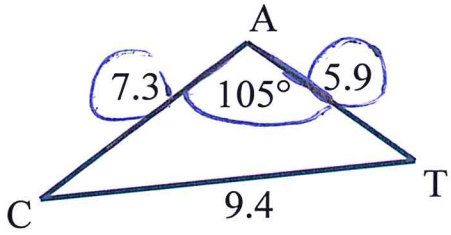
7.



$A = \frac{1}{2}(12)(6)\sin 62$

$A = 32$

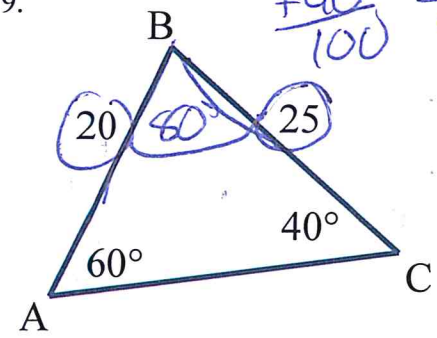
8.



$A = \frac{1}{2}(7.3)(5.9)\sin 105$

$A = 21$

9.



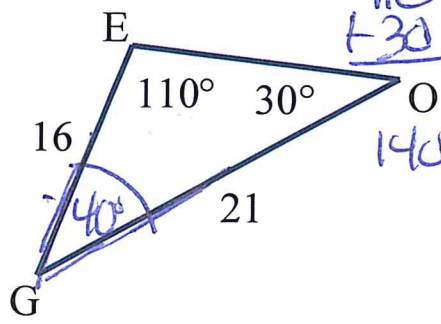
60 + 40 = 100

180 − 100 = 80

$A = \frac{1}{2}(20)(25)\sin 80$

$A = 246$

10.



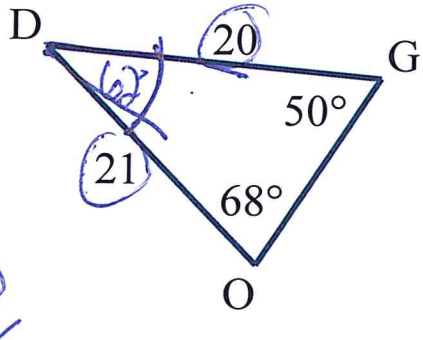
110 + 30 = 140

180 − 140 = 40

$A = \frac{1}{2}(16)(21)\sin 40$

$A = 108$

11.



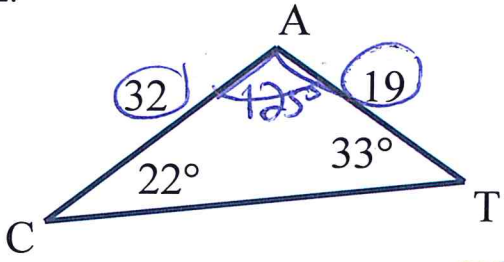
68 + 50 = 118

180 − 118 = 62

$A = \frac{1}{2}(20)(21)\sin 62$

$A = 185$

12.



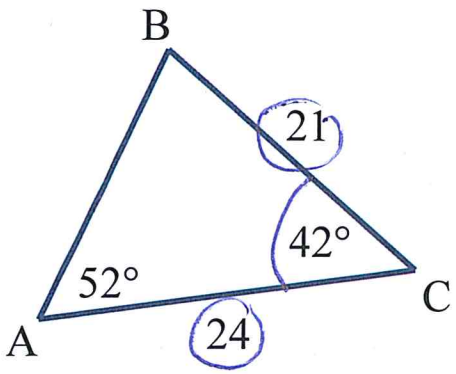
22 + 33 = 55

180 − 55 = 125

$A = \frac{1}{2}(19)(32)\sin 125$

$A = 249$

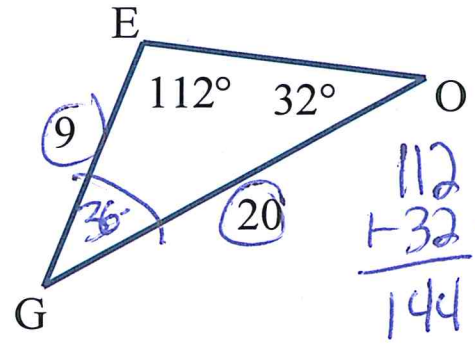
13.



$A = \frac{1}{2}(21)(24)\sin 42$

$A = 169$

14.

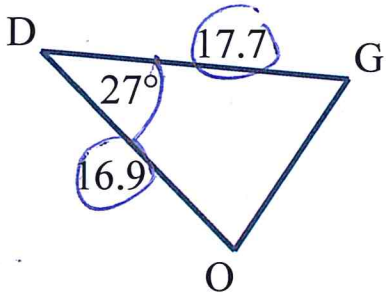


112 180
+32 −144
144 36

$A = \frac{1}{2}(9)(20)\sin 36$

$A = 53$

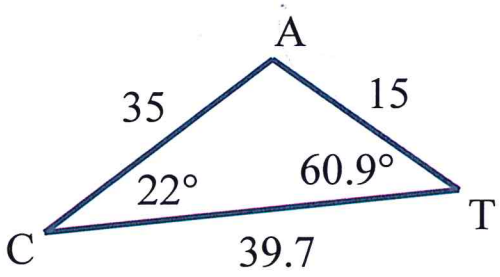
15.



$A = \frac{1}{2}(16.9)(17.7)\sin 27$

$A = 68$

16.



$A = \frac{1}{2}(35)(39.7)\sin 22°$

or

$A = \frac{1}{2}(15)(39.7)\sin 60.9$

$A = 260$