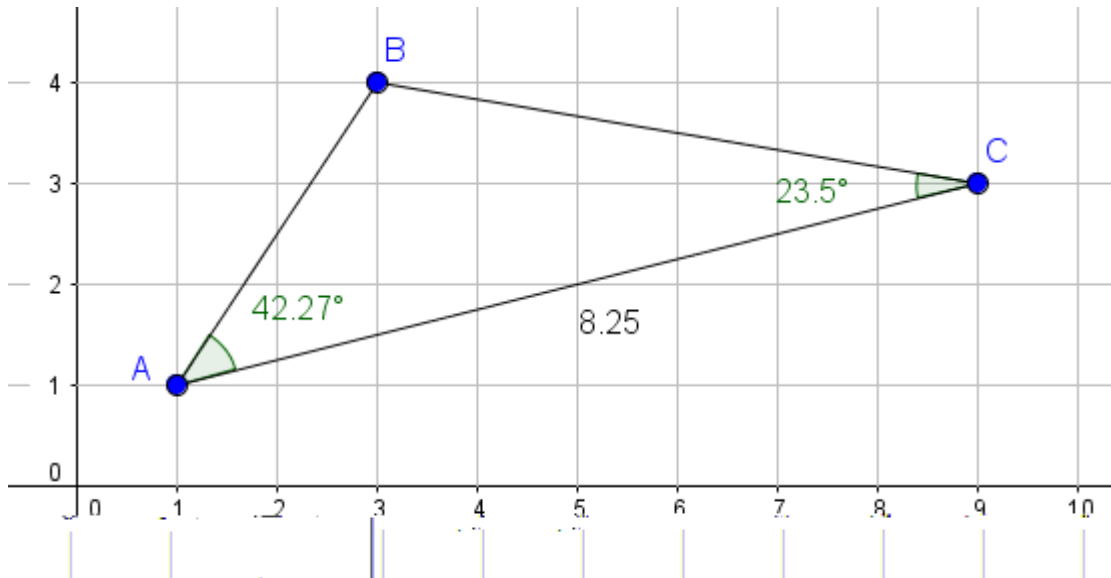


Different formula to find the area of triangle

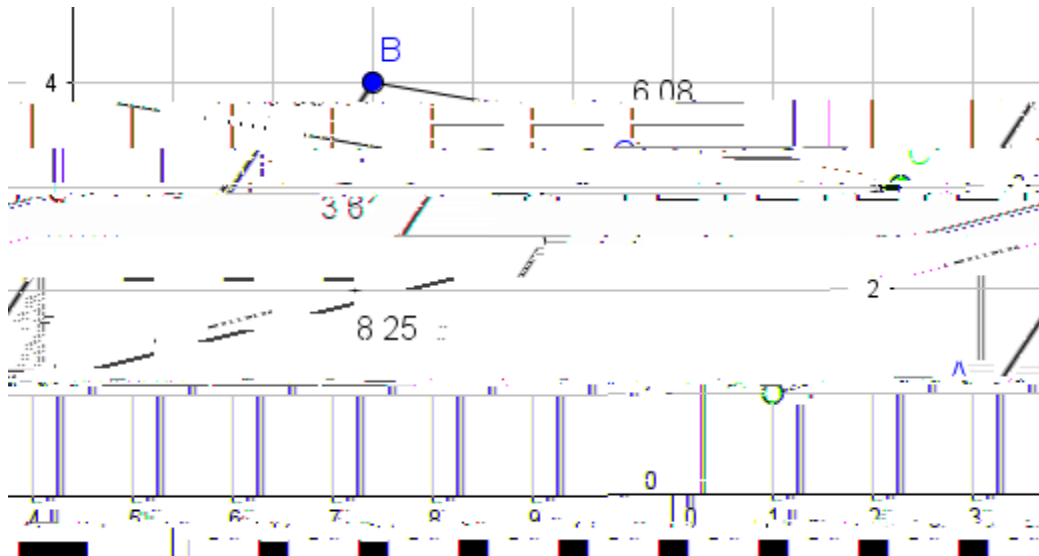
You will find the area of the given triangle use its appropriate formula

1. Given the base and height $A = \frac{1}{2} \times \text{base} \times \text{height}$

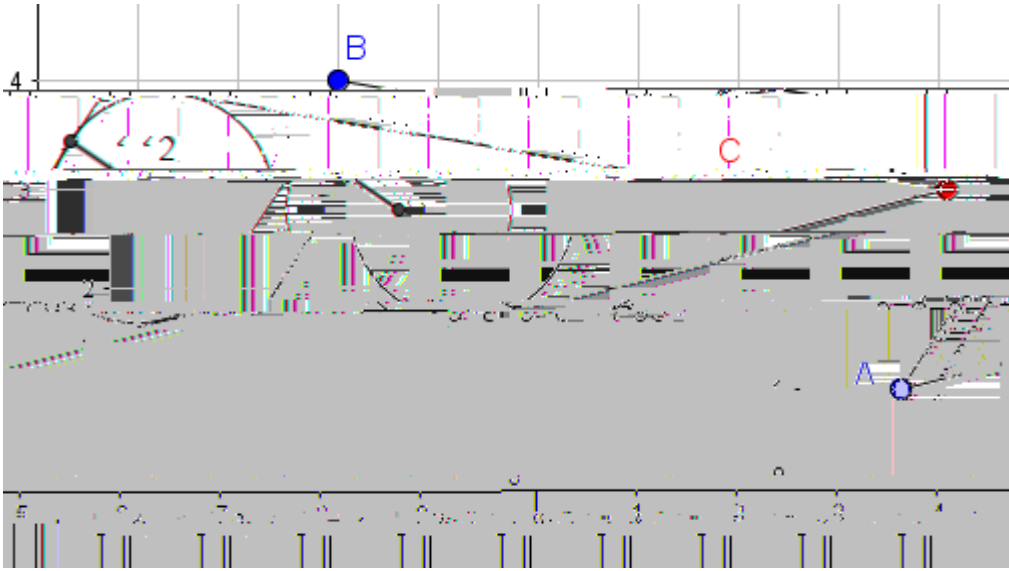
3. Given a side's length and measurement of two adjacent angle $A = \frac{(a^2) \sin(B) \sin(C)}{2 \sin(B+C)}$
 Note! $\sin^2 \theta = \sin(\theta) \sin(\theta)$



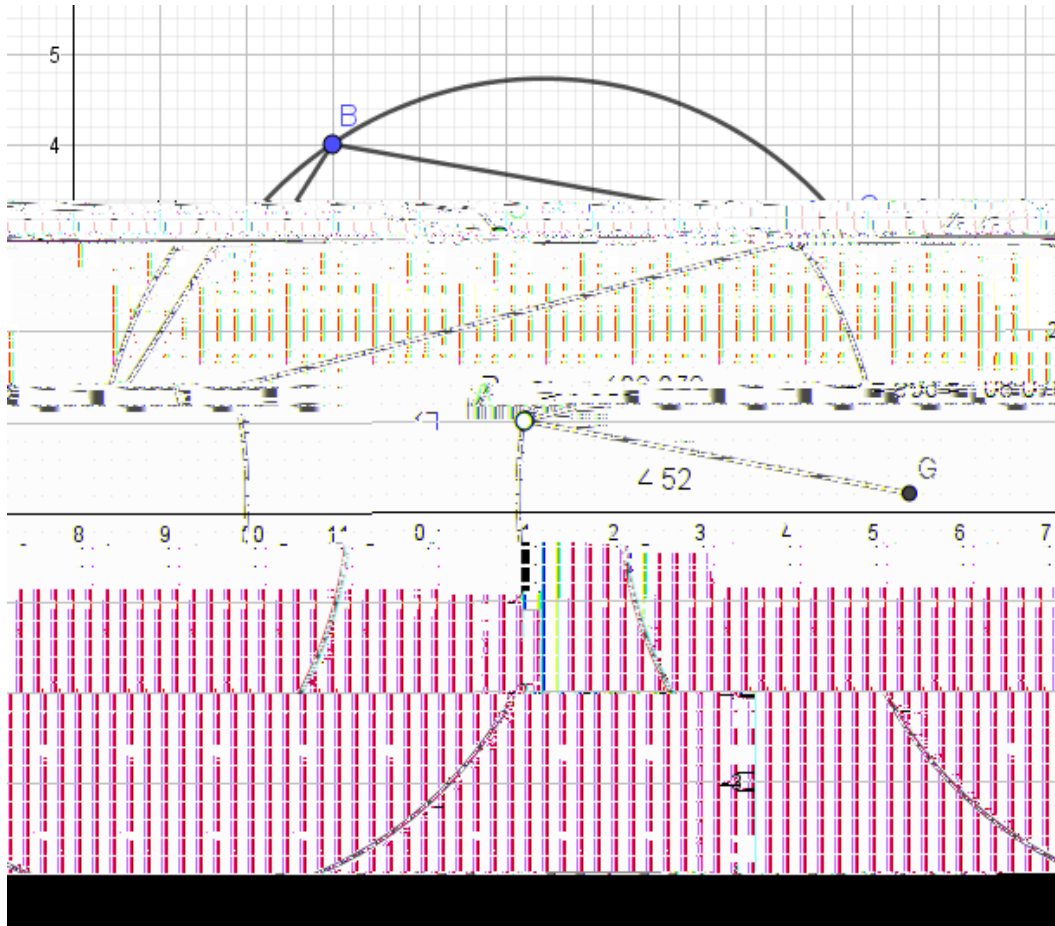
4. Given 3 side's length Heron's formula $A = \sqrt{s(s-a)(s-b)(s-c)}$
 where semi-perimeter $s = \frac{(a+b+c)}{2}$



∴ Given the perimeter and inradius value $A = \frac{(p)(r)}{2}$



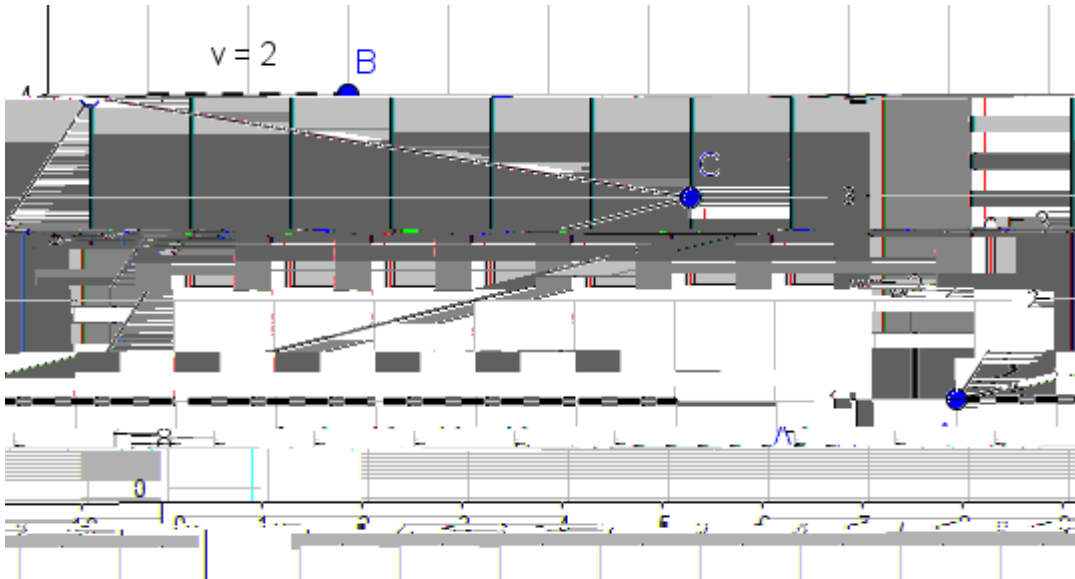
- Given the product of three side's length and circumradius value $A = \frac{(P)}{4R}$



7. Given the measure of any two angles and circumradius $A = 2R \sin(A) \sin(B) \sin(A+B)$
Note! $\sin^2(\theta) = 1 - \cos^2(\theta)$

8. Given the coordinate of 3 vertices $A =$

1. Given the length of 3 vertices $A = \frac{fg - vw}{2}$ where f and v are shown as in the picture



14. Given the vertices are at integer points on a grid of points

(area = number of points inside triangle + half number of points on edge of triangle + 1)
 Pick's theorem + Gauss (Legendre's theorem)

