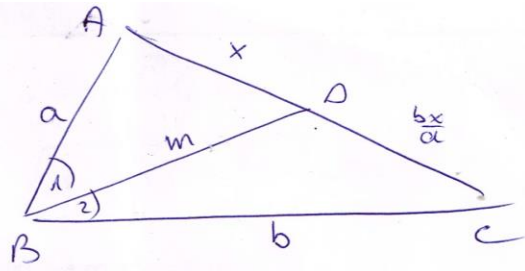


2.89
6

(10)



$$\frac{a}{b} = \frac{x}{bc} \rightarrow bc = \frac{bx}{a}$$

$$Cg \times B_1 = \frac{x^2 - a^2 - m^2}{-2am} = \frac{\frac{b^2 x^2}{a^2} - m^2 - b^2}{-2mb}$$

$$bx^2 - ba^2 - bm^2 = \frac{b^2 x^2}{a} - m^2 a - b^2 a$$

$$abx^2 - ba^3 - bam^2 = b^2 x^2 - m^2 a^2 - b^2 a^2$$

$$x^2 (ab - b^2) = ba^3 + bam^2 - m^2 a^2 - b^2 a^2$$

$$x^2 = \frac{baba^2 - b^2 a^2 + m^2 a(a-b)}{b(a-b)}$$

$$x^2 = \frac{-ba^2(b-a) + am^2(b-a)}{b(a-b)} = \frac{-ba^2 + am^2}{-b} = \frac{ba^2 - am^2}{b}$$

$$Cg \times B_1 = \frac{\frac{ba^2 - am^2}{b} - a^2 - m^2}{-2am} = \frac{ba^2 - am^2 - ba^2 - m^2 b}{-2amb} = \frac{m^2(a+b) - m(a+b)}{2ab}$$

(2) $\sin \angle B = 2 \sin \angle B_1 Cg \times B_1$

$$\sin \angle B = \sqrt{1 - Cg \times B_1} = \sqrt{1 - \frac{m^2(a+b)^2}{4a^2b^2}} = \frac{\sqrt{4a^2b^2 - m^2(a+b)^2}}{2ab}$$

$$S = \frac{a \cdot b \sin \angle B}{2} = \frac{m(a+b)}{4ab} \sqrt{4a^2b^2 - m^2(a+b)^2}$$