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## lengths of triangle medians

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By the Apollonius theorem, in any triangle, the  $m_a$ ,  $m_b$ ,  $m_c$  of the <http://planetmath.org/Median> medians of opposing the the sides  $a$ ,  $b$ ,  $c$ , respectively, are

$$m_a = \frac{1}{2}\sqrt{2b^2 + 2c^2 - a^2},$$

$$m_b = \frac{1}{2}\sqrt{2c^2 + 2a^2 - b^2},$$

$$m_c = \frac{1}{2}\sqrt{2a^2 + 2b^2 - c^2}.$$