The triangle ABC is shown below
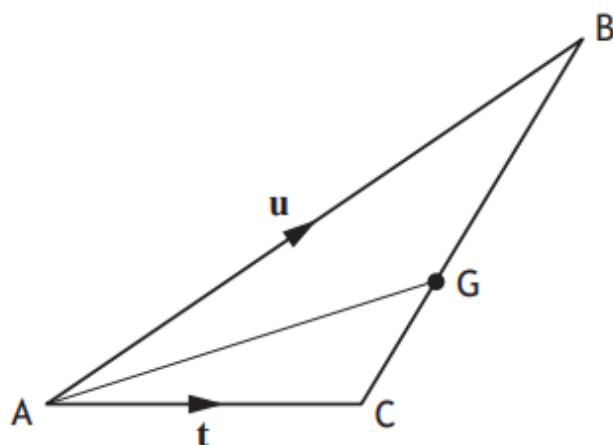
$\overrightarrow{AB} = \mathbf{u}$ and $\overrightarrow{AC} = \mathbf{t}$.

G is the point such that $CG = \frac{1}{3}CB$.

Express $\overrightarrow{AG}$ in terms of $\mathbf{u}$ and $\mathbf{t}$.

Give your answer in simplest form.

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Answer:

$\frac{2}{3}\underline{t} + \frac{1}{3}\underline{u}$ (or equivalent)