

- 10** The geometric progression a_1, a_2, a_3, \dots has first term 2 and common ratio r where $r > 0$. It is given that $\frac{9}{2}a_5 + 7a_3 = 8$.

(a) Find the value of r .

[3]

This image shows a full page of white paper with horizontal dotted lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(b) Find the sum of the first 20 terms of the geometric progression. Give your answer correct to 4 significant figures. [2]

[2]

[illegible]

