

(a) Show that the common difference is $-\frac{1}{\cos^4 \theta}$. [4]

This image shows a single page of white paper with horizontal ruling lines. 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 exact value of the 13th term when $\theta = \frac{1}{6}\pi$. [3]

[3]