

3 **(a)** Evaluate

$$\sum_{r=1}^4 \frac{1}{r}$$

giving your answer as a fraction in its lowest terms.

[1]

(b) Write the sum $1 + 3 + 5 + 7 + 9$ in a similar way to the series in part **(a)**.

[2]

(c) Explain why the sum to infinity of $1 + 3 + 5 + 7 + 9 + \dots$ is **not** well defined.

[1]