

16 A beam of laser light of frequency $5.0 \times 10^{14} \text{ Hz}$ is travelling through a vacuum.

What is the phase difference between points on the wave that are $1.5 \mu\text{m}$ apart?

A 0.5 rad

B $0.5\pi \text{ rad}$

C 1.0 rad

D $1.0\pi \text{ rad}$

17 Two sets of thin polarising filters, X and Y, are arranged in parallel and in line, with their planes of