To begin with, we must make note of the well known product representation of the zeta function,

$$\zeta(s) = \prod_{p \text{ prime}} (1 - p^{-s})^{-1}$$

If we look at our product we have

$$P = \prod_{p \text{ prime}} \frac{p^2 + 1}{p^2 - 1}$$

Dividing the numerator and denominator by p^2,

$$= \prod_{p \text{ prime}} \frac{1 + \frac{1}{p^2}}{1 - \frac{1}{p^2}}$$

Now, we multiply by 1 in the form of the fraction

$$\begin{aligned} \prod_{p \text{ prime}} \frac{1 + \frac{1}{p^2}}{1 - \frac{1}{p^2}} &= \prod_{p \text{ prime}} \frac{1 + \frac{1}{p^2}}{1 - \frac{1}{p^2}} \cdot \frac{1 - \frac{1}{p^2}}{1 - \frac{1}{p^2}} \\ &= \prod_{p \text{ prime}} \frac{1 - \frac{1}{p^4}}{\left(1 - \frac{1}{p^2}\right)^2} \end{aligned}$$

The products have reached the form of the Riemann Zeta function, so we can simplify

$$\begin{aligned} \prod_{p \text{ prime}} \frac{1 - \frac{1}{p^4}}{\left(1 - \frac{1}{p^2}\right)^2} &= \frac{(\zeta(2))^2}{\zeta(4)} \\ &= \frac{(\pi^2/6)^2}{\pi^4/90} \\ &= \frac{5}{2} \end{aligned}$$