ON PRIME NUMBERS⑭(DefinitionⅧ)

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Yuji Masuda
(y_masuda0208@yahoo.co.jp)

$$c[n] = \frac{\sqrt{p[n]} + 1}{2} \quad , \quad d[n] = \frac{c[n]^2 + 7 * c[n] - 6}{2}$$

$$\therefore\ d[n] = \frac{p[n] + 16 \cdot \sqrt{p[n]} - 9}{8}$$

$$(\because p[n] = nth\ prime\ number)$$

Here, from "ON PRIME NUMBERS⑬"

$$lim(n \to \infty)\frac{\ln(n)}{ln(d[n])} = 1 \qquad ①$$

$$n(lnn + ln(lnn) - 1) < p[n] < n(lnn + ln(ln n))$$

Here, from "DefinitionⅦ"

$$0 < p[\infty] < \infty = 3 \qquad \therefore p[\infty] = 2$$

$$① = \frac{\ln(\infty)}{ln(d[\infty])} = 1 \qquad \therefore d[\infty] = \infty$$

$$\therefore\ d[\infty] = \frac{p[\infty] + 16 \cdot \sqrt{p[\infty]} - 9}{8} = \infty$$

$$\frac{2 + 16\sqrt{2} - 9}{8} = \infty$$

$$\therefore\ \infty = \frac{249}{8} = \frac{249}{3} = 83 = 3 = -2$$

That's all. (Proof End)