

$$\left(\sin \frac{\sqrt{r}}{r} + \cos \frac{\sqrt{r}}{r}\right) = \frac{\sqrt{r+1}}{r} \quad f\left(\frac{\sqrt{r+1}}{r}\right) = r\left(\frac{\sqrt{r+1}}{r}\right)^2 - r\left(\frac{\sqrt{r+1}}{r}\right)$$

$$r \times \frac{r+1}{r^2} - \frac{r\sqrt{r+1}}{r} = \frac{r+1}{r} - \sqrt{r+1} = -\frac{1}{r}$$

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$$f(a) = \frac{a+1}{a-1} \quad f\left(\frac{a+1}{a-1}\right) = a \quad \boxed{1R - \{1\}}$$

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$$\frac{\frac{a+1}{a-1} + 1}{\frac{a+1}{a-1} - 1} = \frac{a+1+a-1}{a+1-a-1} = \frac{2a}{a-1} = \frac{2a}{a-1} \times \frac{a-1}{2} = a$$

$$g(a) = \sqrt{a^2 - 1}$$

$$f(\sqrt{a^2 - 1}) = (\sqrt{a^2 - 1})^2 - r(\sqrt{a^2 - 1}) = a^2 - 1 - (r\sqrt{a^2 - 1}) = -r$$

$$a^2 - 1 - r\sqrt{a^2 - 1} + r = 0$$

$$(\sqrt{a^2 - 1} - r)^2 = 0$$

$$a^2 - 1 = r \rightarrow a^2 = r + 1 \rightarrow a = \pm \sqrt{r+1}$$

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$$f(n+r) = n^2 - \omega n + r \quad f(-r) = (-r)^2 - \omega(-r) + r = r^2$$

$$n+r = -r \rightarrow n = -2r$$

$$n+r = e$$

$$n = +1 \quad f(e) = 1 - \omega + r = r \quad r \times r = 1 \times 1 = 1$$

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$$r \cos^2 m + \omega \cos m = \frac{r\omega}{r} = \frac{\omega}{r} \rightarrow r \cos^2 m + \omega \cos m - \frac{\omega}{r} = 0$$

$$\sin = \frac{\sqrt{r}}{r} \quad \cos = \frac{1}{r} \quad (r \cos^2 m + \omega \cos m - 1 = 0)$$

$$\tan^2 \theta = \frac{\sqrt{r}}{r} \times \frac{r}{1} = \sqrt{r} \rightarrow \theta = \frac{1}{2} \cos^{-1} \frac{1}{r}$$

$$\cos m = \frac{1}{r} \rightarrow \theta = \frac{1}{2} \cos^{-1} \frac{1}{r}$$

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