

$$a_r, a_v, a_a \rightarrow (a_1 + rd), (a_1 + vd), (a_1 + \lambda d)$$

$$(a_1 + vd)^r = (a_1 + rd)(a_1 + \lambda d) \rightsquigarrow a_1^r + rvd^r + \lambda a_1 d = a_1^r + \lambda a_1 d + r a_1 d + \lambda v d^r$$

$$rd^r + \lambda v a_1 d = 0 \rightsquigarrow rd(1 + d + a_1) = 0 \quad \begin{cases} rd = 0 \rightarrow d = 0 \\ 1 + d + a_1 = 0 \rightarrow d = -\frac{a_1}{10} \end{cases}$$

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$$a_r, a_v, a_\lambda \rightarrow \frac{(a_1 + d)}{ra_1}, \frac{(a_1 + vd)}{ra_1}, \frac{(a_1 + \lambda d)}{\lambda a_1}$$

$$a_1 = \frac{1}{r}$$

$$(a_1 + rd)^r = (a_1 + d)(a_1 + vd) = a_1^r + rd^r + va_1 d = a_1^r + a_1 vd + a_1 d + vd^r$$

$$rd^r - rda_1 = 0 \rightarrow rd(d - a_1) = 0 \quad \begin{cases} d = 0 \quad \text{ö ö z} \\ d = a_1 \Rightarrow d = \frac{1}{r} \end{cases}$$

$$\frac{1}{r}, \frac{1}{r}, 1, r, \dots \rightarrow q = \frac{r}{1} = r$$

$$a_{10} = a_1 q^9 = \frac{1}{r} \times r^9 = \frac{1}{r^8} \times r^9 = r = \boxed{1/r}$$

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$$ra_r, ra_v, ra_\lambda \rightarrow \text{ö z} : ra_1 q, ra_1 q^r, a_1 q^r \quad ra_1 q^r = \frac{ra_1 q + a_1 q^r}{r}$$

$$ra_1 q^r = ra_1 q + a_1 q^r \rightarrow a_1 q^r - ra_1 q^r + ra_1 q = 0 \rightsquigarrow a_1 q(q^r - r q + r) = 0$$

$$\text{ö ö z} \quad \rightarrow (q-1)(q-r) = 0$$

$$q = 1 \text{ ö r}$$

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$$a_n = r, \frac{v}{r}, \dots \rightsquigarrow d = \frac{v - \lambda}{r} = \frac{-1}{r} \Rightarrow a_r = r + r(-\frac{1}{r}) = 0 / a_n = a_1 + vd = r + v(-\frac{1}{r}) = \frac{1}{r} /$$

$$a_{1r} = a_1 + r d = r + r(-\frac{1}{r}) = -1$$

$$\frac{0}{r} + x, \frac{1}{r} + x, -1 + x \rightsquigarrow (\frac{1}{r} + x)^r = (\frac{0}{r} + x)(x - 1) = \frac{1}{14} + x^r + \frac{1}{r} x = x^r + \frac{0}{r} x - x - \frac{0}{r} = -\frac{r}{14}$$

$$\frac{1}{r} x + \frac{r}{14} = 0 \rightarrow \frac{x}{r} = -\frac{r}{14} \rightarrow x = -\frac{r^2}{14} = \frac{-r}{14}$$

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$$t_n = \frac{-14}{r}, -\frac{r}{r}, -\frac{r}{r} \rightsquigarrow -r, -a, -\frac{r}{r} \rightsquigarrow q = \frac{\frac{r}{r}}{\frac{r}{r}} = \frac{r}{r} = \frac{0}{r} \Rightarrow q = \frac{0}{r}$$

$$a_1, a_r, a_v \text{ (ö z)} \rightarrow a_1, a_1 q^r, a_1 q^v$$

$$a_1 + a_r + a_v = vr$$

$$a_1(1 + q^r + q^v) = vr$$

$$a_1(1 + \lambda + 4r) = vr \rightarrow vr a_1 = vr$$

$$a_1 = 1$$

$$a^r - a_1 = \frac{a_v - a_r}{\lambda}$$

$$a_1(q^r - 1) = \frac{a_1 q^r(q^r - 1)}{\lambda} \cdot \frac{q^r}{\lambda} = 1 \rightsquigarrow q^r = 1 \rightarrow q = r$$

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$$1, \lambda, \dots \rightarrow d = \lambda - 1 = \boxed{v}$$