

fraction  $\frac{N - a^m}{m a^{m-1}}$ , (by which substitution the said quadrattick equation would be converted into the following simple equation,  $a^m + m a^{m-1} z + m \times \frac{m-1}{2} \times a^{m-2} z \times \sqrt{\frac{N - a^m}{m a^{m-1}}} = N$ ,) and then resolving the simple equation thence resulting, to wit, the simple equation  $a^m + m a^{m-1} z + m \times \frac{m-1}{2} \times a^{m-2} z \times \frac{N - a^m}{m a^{m-1}} = N$ , or  $m a^{m-1} z + m \times \frac{m-1}{2} \times a^{m-2} \times \sqrt{\frac{N - a^m}{m a^{m-1}}} \times z = N - a^m$ , or  $z \times \left[ m a^{m-1} + m \times \frac{m-1}{2} \times a^{m-2} \times \sqrt{\frac{N - a^m}{m a^{m-1}}} \right] = N - a^m$ , in the usual way, or by the single operation of Division, which would give us  $z (=$

$$\begin{aligned} & \frac{N - a^m}{m a^{m-1} + m \times \frac{m-1}{2} \times a^{m-2} \times \sqrt{\frac{N - a^m}{m a^{m-1}}}} \\ &= \frac{N - a^m}{m a^{m-1} + \frac{m-1}{2} \times a^{m-2} \times \sqrt{\frac{N - a^m}{a^{m-1}}}} \\ &= \frac{2 \times N - a^m}{2 m a^{m-1} + (m-1) a^{m-2} \times \sqrt{\frac{N - a^m}{a^{m-1}}}} \\ &= \frac{2 \times N - a^m}{2 m a^{2m-2} + (m-1) \times a^{m-2} \times N - a^m} \\ & \quad a^{m-1} \end{aligned}$$

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