

(A) $\delta^{-1}x, \delta^{-1}y, \delta^{-1}z, \delta^{-1}\Omega$ | (B) ϕ, x, ψ, Ω | (Γ) $\delta^0\phi, \delta^0x, \delta^0\psi, \delta^0\Omega$

(Δ) $\delta^1x, \delta^1y, \delta^1z, \delta^1\psi$ | (E) $\delta x, \delta y, \delta z, \delta\psi$ | (Σ) $\dot{x}, \dot{y}, \dot{z}, \dot{\Omega}, \dot{\psi}$

(H) $\delta\delta x, \delta\delta y, \delta\delta z, \delta\delta\Omega$ | (Θ) $\delta^2x, \delta^2y, \delta^2z, \delta^2\Omega$ | (I) $\delta\delta\delta x, \delta\delta\delta y, \delta\delta\delta z, \delta\delta\delta\Omega$

(K) $\delta^3x, \delta^3y, \delta^3z, \delta^3\Omega$ | (Λ) $\delta^{-5}x, \delta^{-4}x, \delta^{-3}x, \delta^{-2}x, \delta^{-1}x, \delta^0x, \delta^1x, \delta^2x, \delta^3x, \delta^4x, \delta^5x$

(M) $\alpha + x + y + \Omega$ | (N) $\alpha + \delta^0x + \delta^0y + \delta^0\Omega$ | (Ξ) $\delta^1x + \delta^1y + \delta^1\Omega$ | (O) $\delta^2x, \delta y^2, \delta^2\Omega$

(Π) $\beta + \alpha x + z - \Omega$ | (P) $\alpha\delta x + \delta z - \delta\Omega$ | (Σ) $\delta^2y + \delta^2x - \delta^2\Omega$ | (T) $\delta^3y + \delta^3x - \delta^3\Omega$

(Υ) $\delta x + \delta\Omega - \delta y$ | (Φ) $\delta\delta\Omega - \delta\delta y$ | (X) $\delta z + \delta\Omega - \delta y$ | (Ψ) $\delta\delta z + \delta\delta\Omega$ | (Ω) xy

(α) $x\delta y + y\delta x$ | (β) $xy + x\delta y + y\delta x + \delta y\delta x$ | (γ) $x\delta y + y\delta x + \delta y\delta x$

(δ) xyz | (ε) $xy\delta z + xz\delta y + yz\delta x$ | (ς) $xy = \Omega$ | (η) $xyz = \Omega z$ | (θ) $x\delta y + y\delta x = \delta\Omega$

(ι) $\Delta xyz = \Omega\delta z + z\delta\Omega$ | (κ) $\Delta xyz = xy\delta z + xz\delta y + yz\delta x$ | (λ) $xyz\Omega$

(μ) $xyz\delta\Omega + xy\Omega\delta z + xz\Omega\delta y + yz\Omega\delta x$ | (ν) αxyz | (ξ) $\alpha xy\delta z + \alpha xz\delta y + \alpha yz\delta x$

(ο) $\frac{xy}{\alpha}$ | (π) $\frac{x\delta y + y\delta x}{\alpha}$ | (ε) x^2 | (σ) $2x\delta x$ | (τ) $3y^2\delta y$ | (γ) $\frac{4\alpha x^3\delta x}{\beta}$

(φ) $\nu \alpha x^{\nu-1} \delta x$ | (χ) $\nu \cdot \overline{\alpha + x^{\nu-1}} \cdot \delta x$ | (ψ) $\nu \cdot \alpha x^{\mu} \delta x = \nu \cdot \alpha x^{\mu} \delta x$

(ω) $\frac{\mu \cdot \overline{\alpha + x^{\mu-1}}}{\nu} \delta x = \frac{\mu}{\nu} \overline{\alpha + x^{\mu-1}} \delta x$ | (Α) $\frac{\mu}{\nu} \frac{\mu}{\alpha^{\nu} + x^{\nu}} \cdot \frac{\mu-1}{\nu} \overline{\alpha^{\nu} + x^{\nu}} \cdot x^{\nu-1} \delta x$

(A) $\frac{3}{2} y^{\frac{3}{2}+1} dy = \frac{3}{2} y^{\frac{5}{2}} dy = \frac{3}{2} dy \sqrt{y}$ | (B) $\frac{\mu}{\nu} x^{\frac{\mu-\nu}{\nu}} dx = \frac{\mu}{\nu} x^{\frac{\mu-\nu}{\nu}} dx = \frac{\mu}{\nu} dx \sqrt[\nu]{x^{\mu-\nu}}$

(Γ) $\frac{1}{\mu} \frac{1}{\alpha^{\nu} + y^{\nu}} \frac{1}{\mu} \cdot \nu y^{\nu-1} dy = \frac{1}{\mu} \frac{\alpha^{\nu} + y^{\nu}}{\mu} \cdot \nu y^{\nu-1} dy = \frac{\nu}{\mu} y^{\nu-1} dy \sqrt[\mu]{\alpha^{\nu} + y^{\nu}}^{1-\mu}$

(Δ) $\frac{\mu}{\nu} \frac{1}{\alpha^{\nu} + y^{\nu}} \frac{\mu}{\nu} \cdot \nu y^{\nu-1} dy = \frac{\mu}{\nu} \frac{\alpha^{\nu} + y^{\nu}}{\nu} \cdot \nu y^{\nu-1} dy = \mu y^{\nu-1} dy \sqrt[\nu]{\alpha^{\nu} + y^{\nu}}^{\mu-\nu}$

(E) $2x dy + x^2 dy$ | (Z) $\alpha \nu y x^{\nu-1} dx + \alpha x^{\nu} dy$ | (H) $\frac{x}{y}$ | (Θ) $\frac{y dx - x dy}{y^2}$

(I) $\frac{x}{y} = x y^{-1}$ | (K) $y^{-1} dx - 1 \cdot x y^{-2} dy = \frac{1}{y} dx - x dy \cdot \frac{1}{y^2} = \frac{y dx - x dy}{y^2}$

(Λ) $\frac{x}{y} = z$ | (M) $x = yz$ | (N) $dx = y dz + z dy$ | (Ξ) $dx - z dy = y dz$

(O) $\frac{dx}{y} - \frac{x dy}{y^2} = y dz$ | (Π) $\frac{y dx - x dy}{y^2} = dz$ | (P) $\frac{\alpha x}{y}$ | (Σ) $\frac{\alpha y dx - \alpha x dy}{y^2}$

(T) $\frac{x}{\alpha y}$ | (Υ) $\frac{y dx - x dy}{\alpha y^2}$ | (Φ) $\frac{z \Omega x dy + \nu \Omega y dx - x y z d\Omega - x y \Omega dz}{z^2 \Omega^2}$

(X) $\frac{xy}{z \Omega}$ | (Ψ) $dx + dy$ | (Ω) $d dx + d dy$ | (α) $\alpha dx dy$ | (β) $\alpha dx d dy + \alpha dy d dx$

(γ) $\frac{1}{\alpha} dx^2$ | (δ) $\frac{2 dx d dx}{\alpha}$ | (ε) $\frac{dx}{dy}$ | (ς) $\frac{dy d dx - dx d dy}{dy^2}$ | (η) $\sqrt[\nu]{dx^{\mu}}$

(θ) $\frac{\mu}{\nu} dx^{\frac{\mu-\nu}{\nu}} \cdot d dx = \frac{\mu}{\nu} dx^{\frac{\mu-\nu}{\nu}} d dx$ | (ι) $d^1 x$ | (κ) $d^0 x = x$ | (λ) αdx

(μ) αx | (ν) $dx + dz + d\Omega$ | (ξ) $d^0 x + d^0 z + d^0 \Omega = x + z + \Omega$

(ο) $\alpha d^2 x + \beta^2 d\Omega - \beta dz$ | (π) $\alpha dx + \beta^2 d^0 \Omega - \beta d^0 z = \alpha dx + \beta^2 \Omega - \beta z$

(A) $x^v \delta x$ | (B) Ax^π | (Γ) $\pi Ax^{\pi-1} \delta x = x^v \delta x$ | (Δ) $\frac{1}{v+1} x^{v+1}$

(E) $\alpha x^3 \delta x$ | (Z) $\frac{\alpha x^{3+1}}{3+1} = \frac{\alpha x^4}{4}$ | (H) $\frac{\alpha}{\beta} x^4 \delta x$ | (Θ) $\frac{\alpha}{4+1 \cdot \beta} x^{4+1} = \frac{\alpha x^5}{5\beta}$ | (I) $\beta x^{-3} \delta x$

(K) $\frac{\beta x^{-3+1}}{-3+1} = \frac{\beta x^{-2}}{-2} - \frac{\beta}{2x^2}$ | (Λ) $\alpha x^{\frac{1}{2}} \delta x$ | (M) $\frac{1}{2+1} : \alpha x^{\frac{1}{2}} = \frac{2}{3} \alpha x^{\frac{3}{2}} = \frac{2\alpha}{3} V x^3$

(N) $\alpha x^{-\frac{1}{2}} \delta x$ | (Ξ) $-\frac{1}{3+1} : \alpha x^{-\frac{1}{2}} = \frac{2}{3} \alpha x^{\frac{1}{2}}$ | (O) $\frac{\mu}{v} V \frac{\mu-v}{\alpha^v + x^v} \cdot v x^{v-1} \delta x$

(Π) $\frac{\mu}{v} V \frac{\mu-v}{\alpha^v + x^v} \cdot v x^{v-1} \delta x = \mu \cdot \frac{\mu-v}{\alpha^v + x^v} \cdot v x^{v-1} \delta x$

(P) $\frac{\mu-v+1}{v} : \frac{\mu}{v} \frac{\mu-v+1}{\alpha^v + x^v} = \frac{\mu}{\alpha^v + x^v}$ | (Σ) $\frac{3}{2} \cdot 2x \delta x V a^2 + x^2$

(T) $\frac{3}{2} 2x \delta x \cdot \frac{1}{2} = \frac{3}{2} 2x \delta x V a^2 + x^2$ | (Υ) $\frac{1}{2+1} : \frac{3}{2} \frac{1}{2} = \frac{3}{2} \frac{1}{2} = \frac{3}{4} \frac{1}{2} = \frac{3}{8} \frac{1}{2} = \frac{3}{16}$

(Φ) $\frac{\alpha \delta x + 2x \delta x}{\alpha x + x^2} V a x + x^2 = \frac{\alpha \delta x + 2x \delta x}{\alpha x + x^2} \cdot \frac{1}{2}$

(X) $\frac{2}{3} \frac{\alpha x + x^2}{2} \frac{3}{2}$ | (Ψ) $2 \delta x V a^2 x^2 + x^4$ | (Ω) $2x \delta x V a^2 + x^2 = 2x \delta x \cdot \frac{1}{2} = x \delta x$

(α) $\frac{2}{3} \frac{\alpha^2 + x^2}{2} \frac{3}{2} = \frac{2}{3} V \alpha^2 + x^2$ | (β) $3\alpha x^3 \delta x + 4x^4 \delta x V a x + x^2$

(γ) $3\alpha x^2 \delta x + 4x^3 \delta x V a x^3 + x^4 = 3\alpha x^2 \delta x + 4x^3 \delta x \cdot \frac{1}{2} = \frac{3\alpha x^2 \delta x + 2x^3 \delta x}{2}$

(δ) $\frac{2}{3} \frac{\alpha x^3 + x^4}{2} \frac{3}{2} = \frac{2}{3} V \alpha x^3 + x^4$

(A) $\overline{ax+x^2} \cdot \delta x \sqrt{a+x} \mid$ (B) $\sqrt{a+x}=y \mid$ (Γ) $a+x=y^2 \mid$ (Δ) $x=y^2-a$

(E) $x^2=y^4-2ay^2+a^2 \mid$ (Z) $\delta x=2y\delta y \mid$ (H) $\overline{ax+x^2} \cdot \delta x \sqrt{a+x} = ay^2-a^2+y^4-2ay^2+a^2 \cdot 2y^2\delta y$

(Θ) $2y^6\delta y - 2ay^4\delta y \mid$ (I) $\frac{2}{7}y^7 - \frac{2}{5}ay^5 \mid$ (K) $\frac{2}{7} \overline{a+x}^3 \cdot \overline{a+x}^{\frac{1}{2}} - \frac{2}{5} a \cdot \overline{a+x}^2 \cdot \overline{a+x}^{\frac{1}{2}}$

(Λ) $\frac{2}{7} \overline{a+x}^{\frac{7}{2}} - \frac{2}{5} a \cdot \overline{a+x}^{\frac{5}{2}} \mid$ (M) $a^3 \delta x \mid$ (N) $\frac{\sqrt{ax-x^2}}{x\sqrt{ax-x^2}} = \frac{ax}{y}$

(Ξ) $\sqrt{ax-x^2} = \frac{z}{\beta} x \mid$ (O) $ax-x^2 = \frac{a^2 x^2}{y^2} \mid$ (Π) $a-x = \frac{a^2 x}{y^2} \mid$ (P) $y^2 = \frac{a^2 x}{a-x}$

(Σ) $2y\delta y = \frac{a^3 \delta x}{a-x^2} \mid$ (T) $\overline{a-x^2} \cdot 2y\delta y = a^3 \delta x \mid$ (Υ) $\frac{a^4 x^2}{y^4} \cdot 2y\delta y = a^3 \delta x$

(Φ) $\frac{a^4 x \cdot 2\delta y}{y^3 \sqrt{ax-x^2}} = \frac{a^3 \delta x}{x\sqrt{ax-x^2}} \mid$ (X) $\frac{a^4 x \cdot 2\delta y \cdot y}{a x \cdot x\sqrt{ax-x^2}} = \frac{a^3 \delta x}{y^3}$

(Ψ) $\frac{2a^3 \delta y}{y^2} = \frac{a^3 \delta x}{x\sqrt{ax-x^2}} \mid$ (Ω) $2a^3 \delta y \cdot \overline{y}^2 = \frac{a^3 \delta x}{x\sqrt{ax-x^2}}$

(α) $\frac{2a^3 y^{-2+1}}{-2+1} - 2a^3 y^{-1} - \frac{2a^3}{y} \mid$ (β) $-\frac{2a^3}{y} = -\frac{2a^3}{ax} \sqrt{ax-x^2} = -\frac{2a^2}{x} \sqrt{ax-x^2}$

(γ) $ax-x^2 = \frac{z^2 x^2}{\beta^2} \mid$ (δ) $a-x = \frac{z^2 x}{\beta^2} \mid$ (ε) $\frac{a\beta^2 - \beta^2 x}{x} = z^2 \mid$ (ς) $-\frac{a\beta^2 \delta x}{x^2} = 2z\delta z$

(η) $-\delta x = \frac{a\beta^2}{z^2 - \beta^2} \cdot 2z\delta z \mid$ (ι) $\frac{-a^3 \delta x}{x\sqrt{ax-x^2}} = \frac{z^2 - \beta^2 \cdot a^4 \beta^2 \cdot \beta \cdot 2z\delta z}{a\beta^2 \cdot z^2 - \beta^2 \cdot z x}$

$$(A) \frac{-a^3 \delta x}{x \sqrt{ax-x^2}} = \frac{2a^3 \beta \delta z}{x \cdot z^2 - \beta^2} \quad | \quad (B) \frac{-a^3 \delta x}{x \sqrt{ax-x^2}} = \frac{2a^3 \beta \delta z \cdot \overline{z^2 - \beta^2}}{a \beta^2 \cdot z^2 - \beta^2}$$

$$(Γ) \frac{-a^3 \delta x}{x \sqrt{ax-x^2}} = \frac{2a^2 \delta z}{\beta} \quad | \quad (Δ) \frac{a^3 \delta x}{x \sqrt{ax-x^2}} = -\frac{2a^2 \delta z}{\beta} \quad | \quad (E) \frac{-2a^2 z}{\beta}$$

$$(Z) \frac{-2a^2 \cdot \beta}{\beta \cdot x} \sqrt{ax-x^2} = -\frac{2a^2}{x} \sqrt{ax-x^2} \quad | \quad (H) \frac{a \delta x}{x} \quad | \quad (Θ) a \lambda x \quad | \quad I, a\beta = \overline{a+x} \cdot \kappa \Delta$$

$$(K) a\beta = \frac{1}{a} \cdot \overline{a+x^2} \cdot \epsilon \Lambda \quad | \quad (\Lambda) a\beta = \frac{1}{a^2} \cdot \overline{a+x^3} \cdot \phi M \quad | \quad (M) a\beta = \frac{1}{a^3} \cdot \overline{a+x^4} \cdot z N$$

$$(N) \kappa \Delta = \frac{a\beta}{a+x} \quad | \quad (\Xi) \epsilon \Lambda = \frac{a^2 \beta}{\overline{a+x^2}} \quad | \quad (O) \phi M = \frac{a^3 \beta}{\overline{a+x^3}} \quad | \quad (\Pi) z N = \frac{a \beta}{\overline{a+x^4}}$$

$$(P) \delta \kappa = \frac{a\beta \delta x}{a+x} \quad | \quad (\Sigma) \epsilon \Lambda = \frac{2a\beta \delta x}{a+x} \quad | \quad (T) \phi M = \frac{3a\beta \delta x}{a+x}$$

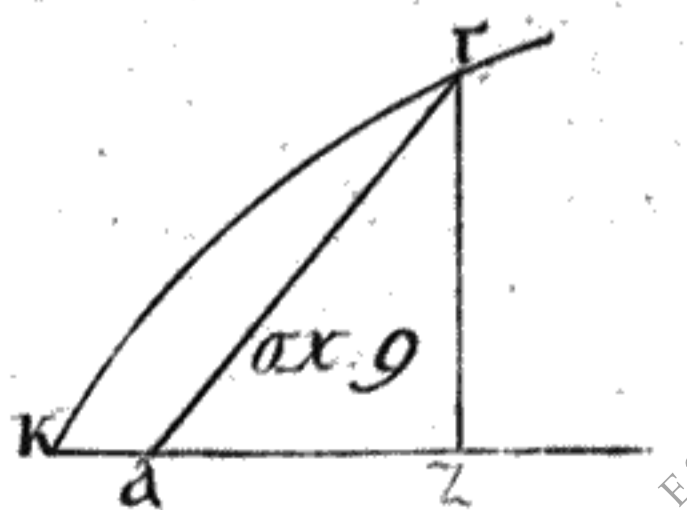
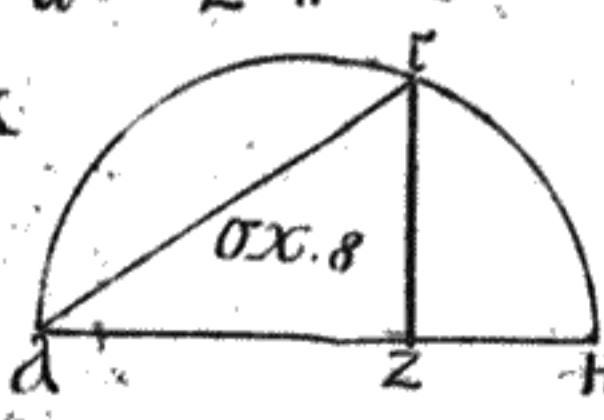
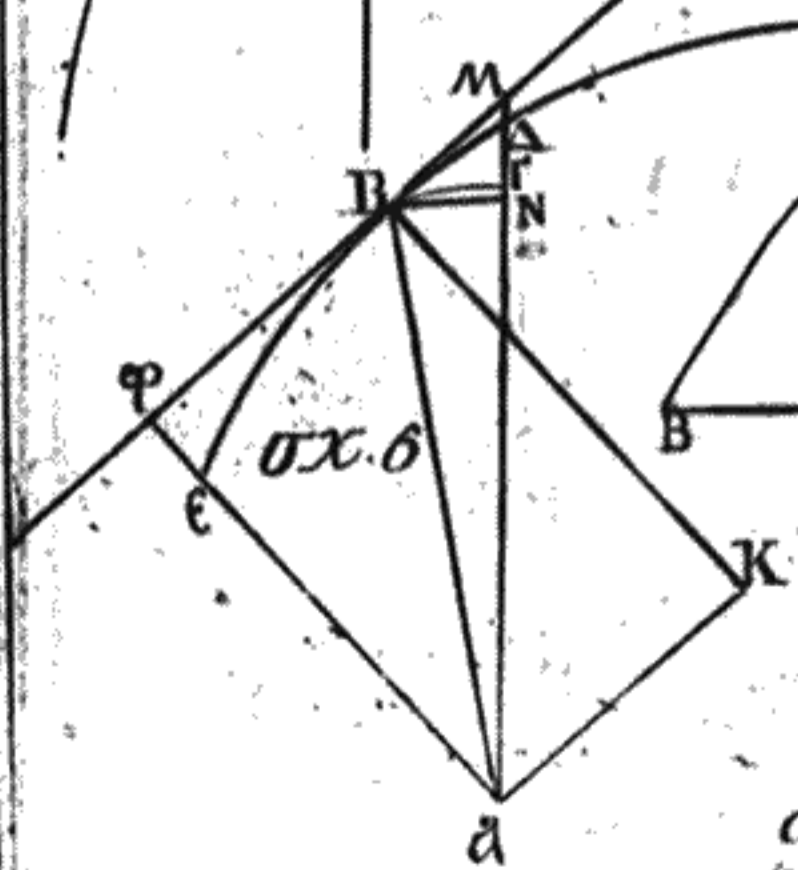
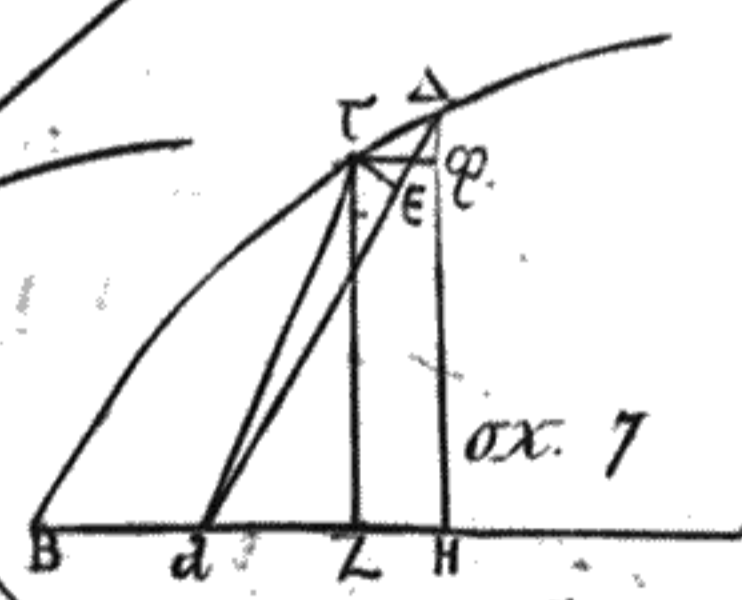
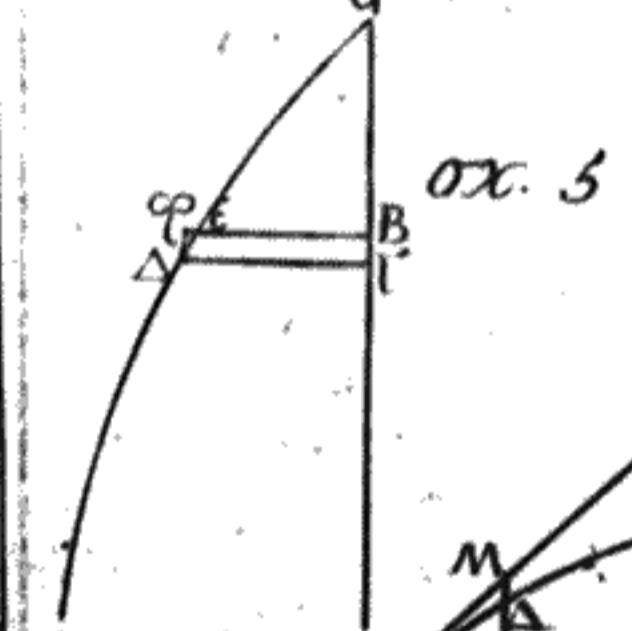
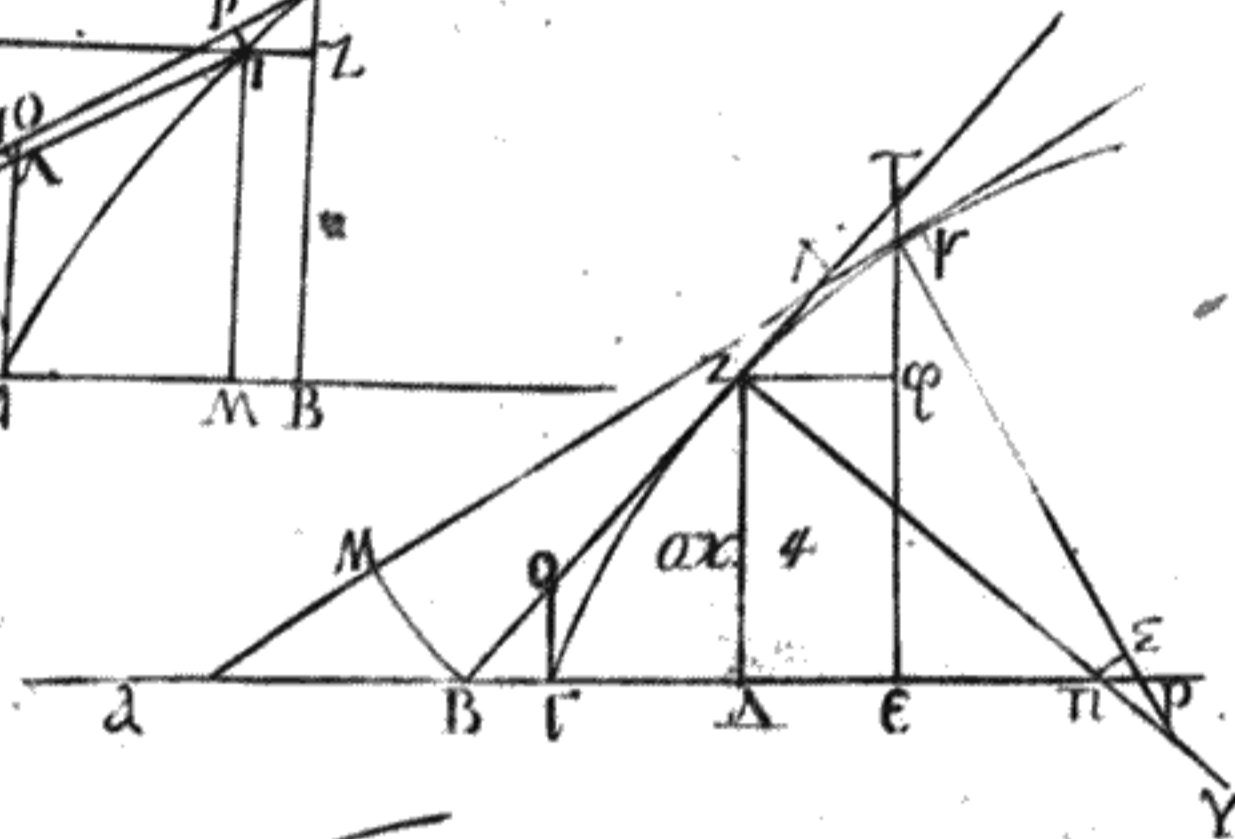
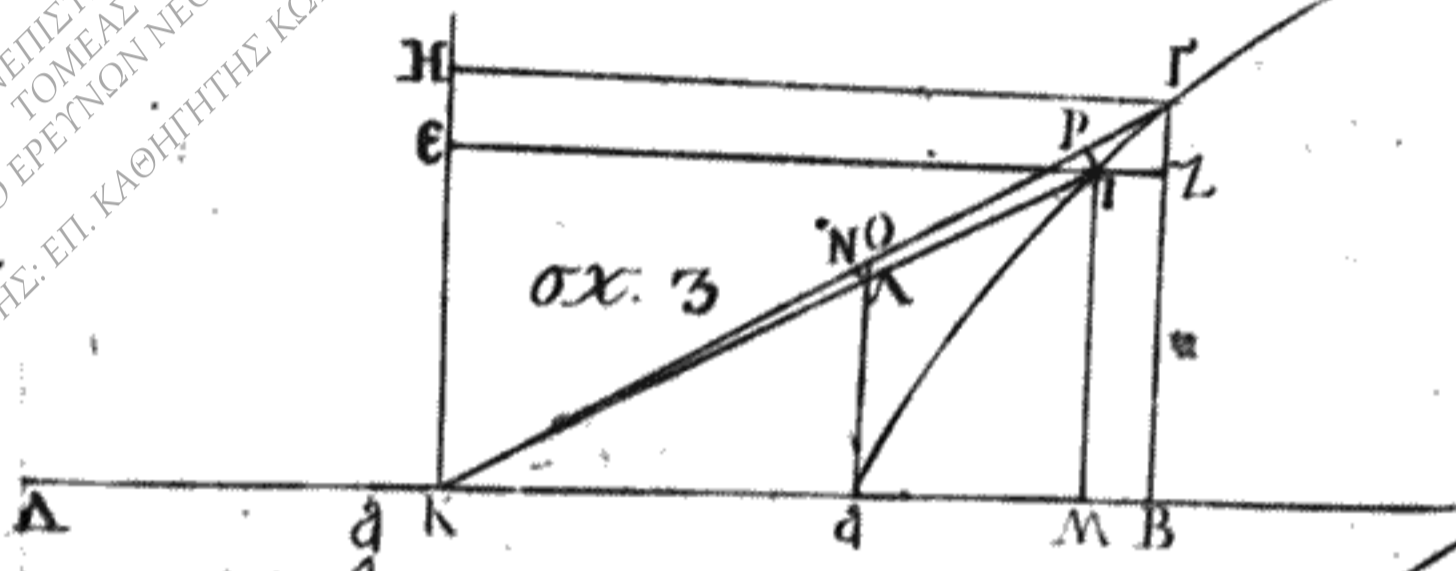
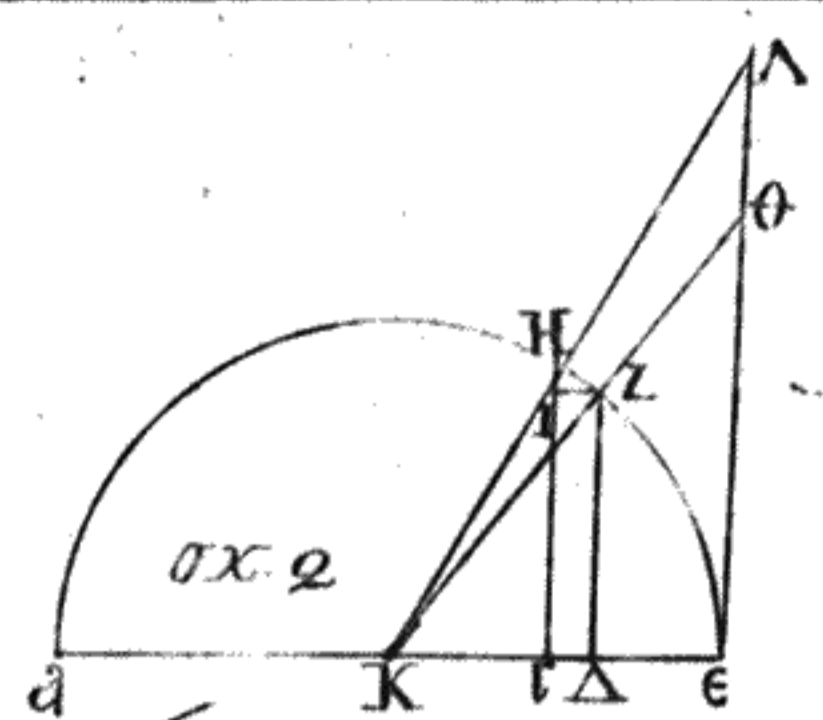
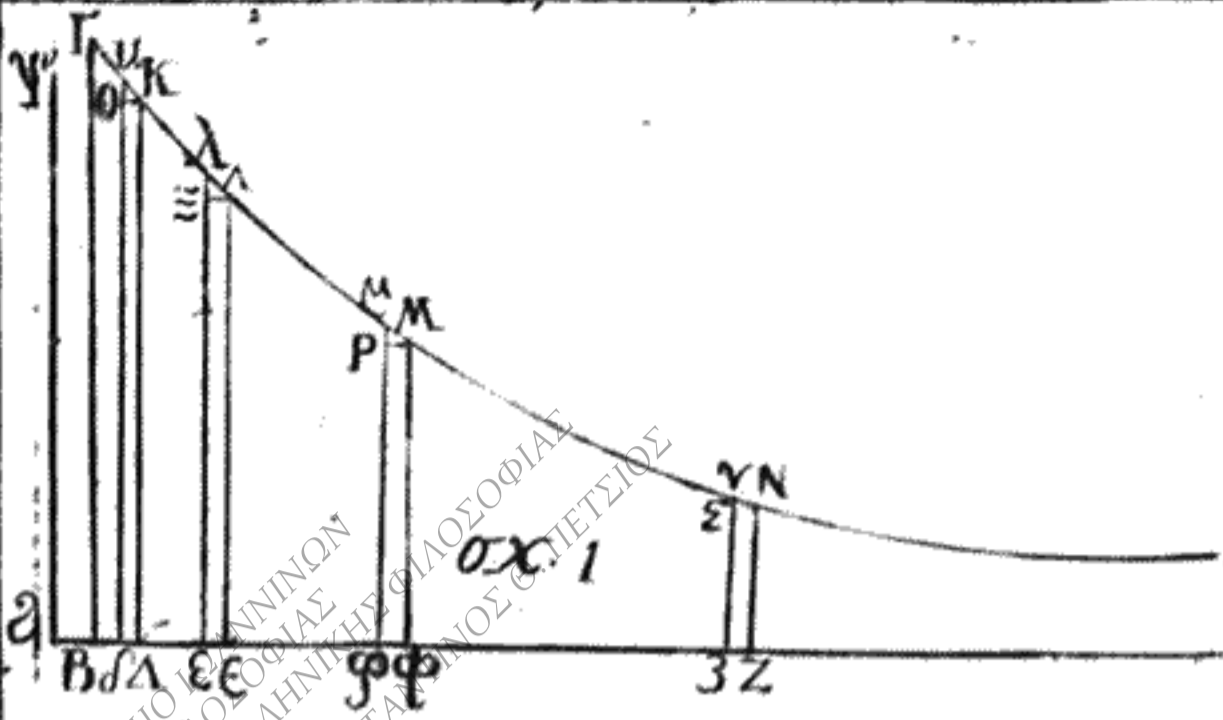
$$(Υ) z N = \frac{4a\beta \delta x}{a+x} \quad | \quad (\Phi) \frac{a\beta \delta x}{a+x} = \Delta \lambda \overline{a+x} \quad | \quad (X) \frac{2a\beta \delta x}{a+x} = \Delta \lambda \frac{1}{a} \overline{a+x^2}$$

$$(\Psi) \frac{3a\beta \delta x}{a+x} = \Delta \lambda \frac{1}{a^2} \overline{a+x^3} \quad | \quad (\Omega) \frac{4a\beta \delta x}{a+x} = \Delta \lambda \frac{1}{a^3} \overline{a+x^4}$$

$$(α) 0 \frac{a\beta \delta x}{a+x} = a\beta \lambda \overline{a+x} \quad | \quad (β) 0 \frac{2a\beta \delta x}{a+x} = a\beta \lambda \overline{a+x^2}$$

$$(γ) 0 \frac{3a\beta \delta x}{a+x} = a\beta \cdot \lambda \overline{a+x^3} \quad | \quad (δ) 0 \frac{4a\beta \delta x}{a+x} = a\beta \lambda \overline{a+x^4} \quad | \quad (ε) \frac{2x \delta x}{\overline{a+x^2}}$$

$$(ς) 1 \cdot \lambda \overline{a^2+x^2} \quad | \quad (η) -\frac{2x \delta x}{a^2-x^2} \quad | \quad (θ) 1 \cdot \lambda \overline{a^2-x^2} \quad | \quad (ι) \frac{4x \delta x}{a^2+x^2} \quad | \quad (κ) 2 \cdot \lambda \overline{a^2+x^2} = \lambda \overline{a^2+x^2}^2$$



ΕΡΓΑΣΤΗΡΙΟ ΕΡΕΥΝΩΝ ΝΕΟΕΛΛΗΝΙΚΗΣ ΦΙΛΟΣΟΦΙΑΣ
 ΔΙΕΥΘΥΝΤΗΣ: ΕΠ. ΚΑΘΗΓΗΤΗΣ ΚΩΝΣΤΑΝΤΙΝΟΣ ΣΠΕΤΣΙΟΣ

$$(A) xdy + ydx \quad | \quad (B) xdy + ydx = \frac{dy}{y} + \frac{dx}{x} \cdot xy \quad | \quad (\Gamma) \frac{dy}{y} + \frac{dx}{x} = \frac{dz}{z}$$

$$(\Delta) \lambda y + \lambda x = \lambda z \quad | \quad (E) yx = z \quad | \quad (Z) \frac{dy}{y} + \frac{dx}{x} \cdot xy = z \cdot \frac{dz}{z} \quad | \quad (H) xdy + ydx = dz$$

$$(\Theta) \frac{ydx - xdy}{y^2} \quad | \quad (I) \frac{ydx - xdy}{y^2} = \frac{dx}{x} - \frac{dy}{y} \cdot \frac{xy}{y^2} \quad | \quad (K) \frac{dx}{x} - \frac{dy}{y} = \frac{dz}{z}$$

$$(\Lambda) \lambda x - \lambda y = \lambda z \quad | \quad (M) \frac{x}{y} = z \quad | \quad (N) \frac{xy}{y^2} = \frac{zy}{y} \quad | \quad (\Xi) \frac{dx}{x} - \frac{dy}{y} \cdot \frac{xy}{y^2} = \frac{dz}{z} \cdot \frac{zy}{y}$$

$$(O) \frac{\beta dx}{\alpha + x} = \frac{\beta dx}{\alpha} - \frac{\beta}{\alpha^2} x dx + \frac{\beta}{\alpha^3} x^2 dx - \frac{\beta}{\alpha^4} x^3 dx, \text{ κτ.} \quad | \quad (P) \frac{\alpha dx}{x^2 \pm \alpha^2}$$

$$(\Pi) 0 \frac{\beta dx}{\alpha + x} = \frac{\beta x}{\alpha} - \frac{\beta x^2}{2\alpha^2} + \frac{\beta x^3}{3\alpha^3} - \frac{\beta x^4}{4\alpha^4}, \text{ κτ.} \quad | \quad (\Sigma) \frac{\alpha dx}{x^2 \pm \alpha^2} = \frac{A dx}{x+c} + \frac{D dx}{x-c}$$

$$(T) \frac{\alpha dx}{x^2 \pm \alpha^2} = \frac{A x dx - A c dx + D x dx + D c dx}{x^2 - c^2} \quad | \quad (\Upsilon) A + D = 0 \quad | \quad (\Phi) Dc - Ac = \alpha$$

$$(X) -c^2 = \pm \alpha^2 \quad | \quad (\Psi) D = -A \quad | \quad (\Omega) c = \alpha \sqrt{\mp 1} \quad | \quad (\alpha) -2A\alpha\sqrt{\mp 1} = \alpha \quad | \quad (\beta) A = \frac{-\alpha}{2\alpha\sqrt{\mp 1}}$$

$$(\gamma) A = \frac{-1}{2\sqrt{\mp 1}} \quad | \quad (\delta) D = \frac{1}{2\sqrt{\mp 1}} \quad | \quad (\epsilon) \frac{\alpha dx}{x^2 \pm \alpha^2} = \frac{-1}{2\sqrt{\mp 1}} \cdot \frac{dx}{x + \alpha\sqrt{\mp 1}} + \frac{1}{2\sqrt{\mp 1}} \cdot \frac{dx}{x - \alpha\sqrt{\mp 1}}$$

$$(\zeta) 0 \frac{\alpha dx}{x^2 \pm \alpha^2} = \frac{-1}{2\sqrt{\mp 1}} \lambda \sqrt{x + \alpha\sqrt{\mp 1}} + \frac{1}{2\sqrt{\mp 1}} \lambda \sqrt{x - \alpha\sqrt{\mp 1}}$$

$$(A) \frac{x \delta x + 3a \delta x}{4a \cdot x^2 + 2ax - a^2} \mid (B) x = y - a \mid (\Gamma) \delta x = \delta y \mid (\Delta) x \delta x = \overline{y - a} \delta y$$

$$(E) x \delta x + 3a \delta x = \overline{y - a} \cdot \delta y + 3a \delta y \mid (Z) x \delta x - 3a \delta x = \overline{y + 2a} \cdot \delta y$$

$$(H) \frac{x \delta x + 3a \delta x}{4a \cdot x^2 + 2ax - a^2} = \frac{y \delta y + 2a \delta y}{4a \cdot y^2 - 2a^2} \mid (\Theta) \frac{x \delta x + 3a \delta x}{4a \cdot x^2 + 2ax - a^2} = \frac{y \delta y}{4a \cdot y^2 - 2a^2} + \frac{\delta y}{2 \cdot y^2 - 2a^2}$$

$$(I) \frac{\delta y}{2 \cdot y^2 - 2a^2} = \frac{\delta y}{2\sqrt{2a^2} \cdot y - a\sqrt{2}} - \frac{\delta y}{2\sqrt{2a^2} \cdot y + a\sqrt{2}}$$

$$(K) \frac{x \delta x + 3a \delta x}{4a \cdot x^2 + 2ax - a^2} = \frac{y \delta y}{4a \cdot y^2 - 2a^2} + \frac{\delta y}{2a\sqrt{2} \cdot y - a\sqrt{2}} - \frac{\delta y}{2a\sqrt{2} \cdot y + a\sqrt{2}}$$

$$(L) \frac{1}{4a} \lambda \sqrt{y^2 - 2a^2} + \frac{1}{2a\sqrt{2}} \lambda \sqrt{y - a\sqrt{2}} - \frac{1}{2a\sqrt{2}} \lambda \sqrt{y + a\sqrt{2}}$$

$$(M) \frac{1}{4a} \lambda \sqrt{x^2 + 2ax - a^2} + \frac{1}{2a\sqrt{2}} \lambda \sqrt{x + a - a\sqrt{2}} - \frac{1}{2a\sqrt{2}} \lambda \sqrt{x + a + a\sqrt{2}}$$

$$(N) \frac{a \delta x}{x^2 - \gamma x + \beta^2} \mid (\Xi) \frac{a \delta x}{x^2 - \gamma x + \beta^2} = \frac{a \delta x}{x^2 - \gamma x + \frac{1}{4} \gamma^2 - \frac{1}{4} \gamma^2 + \beta^2} \mid (O) x - \frac{1}{2} \gamma = z \mid (\Pi) \beta^2 - \frac{1}{4} \gamma^2 = \epsilon^2$$

$$(P) \frac{a \delta x}{x^2 - \gamma x + \beta^2} = \frac{a \delta z}{z^2 + \epsilon^2}$$

$$(A) \frac{a^2 \delta \chi}{\chi^2 + 2a\chi - a^2} \quad | \quad (B) \frac{a^2 \delta \chi}{\chi^2 + 2a\chi - a^2} = \frac{A\chi \delta \chi + B\delta \chi}{\chi^2 + 2a\chi - a^2} + \frac{\Gamma\chi \delta \chi + \Delta \delta \chi}{\chi^2 + a^2}$$

$$(Γ) \frac{a^2 \delta \chi}{\chi^2 + 2a\chi - a^2} = \frac{A \left| \begin{array}{c} \chi^3 + B \\ + \Delta \\ + 2\Gamma\chi \end{array} \right| \chi^2 + \frac{A\chi^2}{+ 2\Delta\chi} \left| \begin{array}{c} \chi + B \\ - \Delta \end{array} \right| a^2}{\Gamma} \delta \chi$$

$$\chi^2 + 2a\chi - a^2 \quad \chi^2 + a^2$$

$$(\Delta) \Lambda + \Gamma = 0 \quad | \quad (E) B + \Delta + 2\Gamma a = 0 \quad | \quad (Z) Aa^2 + 2\Delta a - \Gamma a^2 = 0 \quad | \quad (H) B - \Delta \quad a^2 = a^2 \quad (Θ) \Gamma = -A$$

$$(I) B = 2\Delta a - \Delta \quad | \quad (K) \Gamma = A + \frac{2}{a}\Delta \quad | \quad (\Lambda) \Delta = B - \Gamma \quad | \quad (M) \Delta = 2Aa - \Delta - \Gamma \quad | \quad (N) \Delta = Aa - \frac{\Gamma}{2}$$

$$(\Xi) \Gamma = \frac{3Aa - \Gamma}{a} \quad | \quad (O) \frac{3Aa - \Gamma}{a} = -A \quad | \quad (\Pi) A = \frac{\Gamma}{4a} \quad (P) \Gamma = -\frac{\Gamma}{4a} \quad (\Sigma) \Delta = -\frac{\Gamma}{4} \quad (T) B = \frac{3}{4}$$

$$(Υ) \frac{a^2 \delta \chi}{\chi^2 + 2a\chi - a^2} = \frac{\chi \delta \chi + 3a \delta \chi}{4a \cdot \chi^2 + 2a\chi - a^2} - \frac{\chi \delta \chi}{4a \cdot \chi^2 + a^2} - \frac{\delta \chi}{4 \cdot \chi^2 + a^2}$$

$$(Φ) \frac{a^2 \delta \chi}{\chi^2 + 2a\chi - a^2} = \frac{\chi \delta \chi}{4a \cdot \chi^2 + 2a\chi - a^2} + \frac{3a \delta \chi}{4a \cdot \chi^2 + 2a\chi - a^2} - \frac{\chi \delta \chi}{4a \cdot \chi^2 + a^2} - \frac{\delta \chi}{4 \cdot \chi^2 + a^2}$$

$$(X) \frac{0 \quad a^2 \delta \chi}{\chi^2 + 2a\chi - a^2 \cdot \chi^2 + a^2} = \frac{1}{4} \lambda \sqrt{\chi^2 + 2a\chi - a^2} + \frac{\Gamma}{2a\sqrt{2}} \lambda \sqrt{\chi + a - a\sqrt{2}} - \frac{\Gamma}{2a\sqrt{2}} \lambda \sqrt{\chi + a + a\sqrt{2}} - \frac{1}{4} \lambda \sqrt{\chi^2 + a^2} - \frac{0 \delta \chi}{4 \cdot \chi^2 + a^2}$$

$$(\Psi) \frac{a^2 \chi' \delta \chi}{\chi^2 + 2a\chi - a^2} \quad | \quad (\Omega) \frac{a^2 \delta \chi}{\chi' \cdot \chi^2 + 2a\chi - a^2 \cdot \chi^2 + a^2}$$

$$(A) \alpha x^\pi \delta x \lambda x^\mu \mid (B) \int x^m \lambda x^e \mid (\Gamma) m f x^{m-1} \delta x \lambda x^e + e f x^m \frac{\delta x \lambda x^{e-1}}{x}$$

$$(\Delta) m f = \alpha \mid (E) m - 1 = \pi \mid (Z) e = \mu \mid (H) m = \pi + 1 \mid (\Theta) f = \frac{\alpha}{\pi + 1} \mid (I) \frac{\alpha}{\pi + 1} x^{\pi+1} \lambda x^\mu$$

$$(K) 0 \alpha x^\pi \delta x \lambda x^\mu = \frac{\alpha}{\pi + 1} x^{\pi+1} \lambda x^\mu - 0 \frac{\alpha \mu}{\pi + 1} x^\pi \delta x \lambda x^{\mu-1} \mid (\Lambda) \frac{\alpha \mu}{\pi + 1} x^\pi \delta x \lambda x^{\mu-1}$$

$$(M) \frac{\alpha \mu}{\pi + 1} x^\pi \delta x \lambda x^0 = \frac{\alpha \mu}{\pi + 1} x^\pi \delta x \mid (N) \frac{\alpha \mu}{\pi + 1} x^{\pi+1} \mid (\Xi) \frac{\alpha x^\pi \lambda x^\mu}{\pi + 1} - \frac{\alpha \mu x^{\pi+1}}{\pi + 1^2}$$

$$(O) m f x^{m-1} \delta x + e f x^m \frac{\delta x \lambda x^{e-1}}{x} \mid (\Pi) m f = \frac{\alpha \mu}{\pi + 1} \mid (P) m - 1 = \pi \mid (\Sigma) e = \mu - 1$$

$$(T) m = \pi + 1 \mid (Υ) f = \frac{\alpha \mu}{\pi + 1^2} \mid (\Phi) \frac{\alpha \mu}{\pi + 1^2} x^{\pi+1} \lambda x^{\mu-1} \mid (X) e f x^m \frac{\delta x \lambda x^{e-1}}{x} = e f x^{m-1} \delta x \lambda x^{e-1}$$

$$(\Psi) 0 \frac{\alpha \mu}{\pi + 1} x^\pi \delta x \lambda x^{\mu-1} = \frac{\alpha \mu}{\pi + 1^2} x^{\pi+1} \lambda x^{\mu-1} - 0 e f x^{m-1} \delta x \lambda x^{e-1}$$

$$(\Omega) 0 \frac{\alpha \mu}{\pi + 1} x^\pi \delta x \lambda x^{\mu-1} = \frac{\alpha \mu}{\pi + 1^2} x^{\pi+1} \lambda x^{\mu-1} - 0 \frac{\mu-1}{\pi + 1^2} \alpha \mu x^\pi \delta x \lambda x^{\mu-2}$$

$$(\alpha) 0 \frac{\alpha \mu}{\pi + 1} x^\pi \delta x \lambda x^{\mu-1} = \frac{\alpha \mu}{\pi + 1^2} x^{\pi+1} \lambda x^{\mu-1} - \frac{\mu-1}{\pi + 1^3} \alpha \mu x^{\pi+1}$$

$$(\beta) 0 \alpha x^\pi \delta x \lambda x^\mu = \frac{\alpha}{\pi + 1} x^{\pi+1} \lambda x^\mu - \frac{\alpha \mu}{\pi + 1^2} x^{\pi+1} \lambda x^{\mu-1} + \frac{\mu-1}{\pi + 1^3} \alpha \mu x^{\pi+1}$$

$$(\gamma) 0 \alpha x^\pi \delta x \lambda x^\mu = \frac{\alpha}{\pi + 1} x^{\pi+1} \lambda x^\mu - \frac{\alpha \mu}{\pi + 1^2} x^{\pi+1} \lambda x^{\mu-1} + 0 \frac{\mu-1}{\pi + 1^2} \alpha \mu x^\pi \delta x \lambda x^{\mu-2}$$

$$(\delta) 0 \frac{\mu-1}{\pi + 1^2} \alpha \mu x^\pi \delta x \lambda x^{\mu-2} = \frac{\mu-1}{\pi + 1^3} \alpha \mu x^{\pi+1} \lambda x^{\mu-2} - 0 \frac{\mu-1 \cdot \mu-2}{\pi + 1^3} x^\pi \delta x \lambda x^{\mu-3}$$

$$(\epsilon) 0 \alpha x^\pi \delta x \lambda x^\mu = \frac{\alpha}{\pi + 1} x^{\pi+1} \lambda x^\mu - \frac{\mu \alpha}{\pi + 1^2} x^{\pi+1} \lambda x^{\mu-1} + \frac{\mu-1}{\pi + 1^2} \alpha \mu x^\pi \lambda x^{\mu-2} + 0 \frac{\mu-1 \cdot \mu-2}{\pi + 1^3} x^\pi \delta x \lambda x^{\mu-3}$$

$$(\zeta) \frac{\mu-1}{\pi + 1^3} \frac{\mu-2}{\pi + 1^3} x^\pi \delta x \lambda x^{\mu-3}$$

- (A) $ef\lambda^{\mu-1}\delta\lambda\lambda\lambda^{\mu-1} + m\lambda^{\mu-1}\delta\lambda\lambda\lambda^{\mu}$ | (B) $ef = a$ | (Γ) $m-1 = \pi$ | (Δ) $e-1 = \mu$
- (E) $e = \mu+1$ | (Z) $f = a$ | (H) $m = \pi+1$ | (Θ) $0a\lambda^{\pi}\delta\lambda\lambda^{\mu} = a\lambda^{\pi+1}\lambda\lambda^{\mu+1} - \frac{0\pi+1}{\mu+1} a\lambda^{\pi}\delta\lambda\lambda^{\mu+1}$
- (I) $0a\lambda^{\pi}\delta\lambda\lambda^{\mu} = a\lambda^{\pi+1}\lambda\lambda^{\mu+1} - \frac{0\pi+1}{\mu+1} a\lambda^{\pi}\delta\lambda$ | (K) $\frac{\pi+1}{\mu+1} a\lambda^{\pi}\delta\lambda$
- (Λ) $a\lambda^{\pi}\delta\lambda\lambda^2$ | (M) $m\lambda^{\mu-1}\delta\lambda\lambda\lambda^{\mu} + ef\lambda^{\mu}\delta\lambda\lambda\lambda^{\mu-1}$
- (N) $0a\lambda^2\delta\lambda\lambda\lambda^2 = \frac{1}{4}a\lambda^4\lambda\lambda^2 - \frac{01}{2}a\lambda^3\delta\lambda\lambda\lambda^2 - 1$ | (Ξ) $0a\lambda^3\delta\lambda\lambda\lambda^2 = \frac{1}{4}a\lambda^4\lambda\lambda^2 - \frac{1}{8}a\lambda^4\lambda\lambda + \frac{1}{4 \cdot 8}a\lambda^4$
- (O) $a\lambda^2\delta\lambda\lambda\lambda^{-2}$ | (Π) $0a\lambda^3\delta\lambda\lambda\lambda^{-2} = -a\lambda^4\lambda\lambda^{-1} - \frac{03+1}{-2\frac{1}{2}} a\lambda^3\delta\lambda\lambda\lambda^{-1}$
- (P) $0a\lambda^2\delta\lambda\lambda\lambda^{-2} = \frac{-a\lambda^4}{\lambda\lambda} + \frac{04a\lambda^3\delta\lambda}{\lambda\lambda}$ | (Σ) $a\lambda^3\delta\lambda\lambda\lambda^{\frac{1}{2}}$
- (T) $0a\lambda^{\pi}\delta\lambda\lambda\lambda^{\mu} = f\lambda^{\pi+1}\lambda\lambda^{\mu} - g\lambda^{\pi+1}\lambda\lambda^{\mu-1} + h\lambda^{\pi+1}\lambda\lambda^{\mu-2} \dots L\lambda^{\pi+1}$
- (Υ) $0a\lambda^{\pi}\delta\lambda\lambda\lambda^{\mu} = f\lambda^{\pi+1}\lambda\lambda^{\mu+1} - g\lambda^{\pi+1}\lambda\lambda^{\mu+2} + h\lambda^{\pi+1}\lambda\lambda^{\mu+3} \dots L\frac{0\lambda^{\pi}\delta\lambda}{\lambda\lambda}$
- (Φ) $a\lambda^{\pi}\delta\lambda \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu}}$ | (X) $0a\lambda^{\pi}\delta\lambda \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu}} = f\lambda^{\nu} \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu}}$
- (Ψ) $a\lambda^{\pi}\delta\lambda \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu}} = qf\zeta\nu\lambda^{\varepsilon+\nu-1} \cdot \delta\lambda \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu}} + ef\lambda^{\varepsilon-1}\delta\lambda \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu}}$
- (Ω) $qf\zeta\nu = a$ | (α) $e+\nu-1 = \pi$ | (β) $q-1 = \mu$ | (γ) $q = \mu+1$ | (δ) $f = \frac{a}{3\nu \cdot \mu+1}$
- (ε) $e = \pi - \nu + 1$ | (ζ) $0a\lambda^{\pi}\delta\lambda \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu}} = \frac{a}{\nu\zeta \cdot \mu+1} \lambda^{\pi-\nu+1} \overline{\varepsilon + \zeta\lambda^{\nu\mu+1}} - \frac{a \cdot \pi - \nu + 1}{\nu\zeta \cdot \mu+1} 0\lambda^{\pi-\nu}\delta\lambda \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu+1}}$
- (η) $0a\lambda^{\pi}\delta\lambda \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu}} = \frac{a}{\nu\zeta \cdot \mu+1} \lambda^{\pi-\nu+1} \cdot \overline{\varepsilon + \zeta\lambda^{\nu\mu+1}} - \frac{a \cdot \pi - \nu + 1}{\nu\zeta \cdot \mu+1} 0\lambda^{\pi-1}\delta\lambda$

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