Ellipse.—Let $C=$ circumference, $t=$ transverse axis, $c=$ conjugate axis, $a=$ abscissa, $o=$ ordinate, $d=$ distance of abscissa from centre. $C=\frac{\pi\,(t+c)}{2}$ (96); $A=\frac{\pi\, tc}{4}$ (97); $o=\frac{c}{t}\sqrt{(t-a)\,a}$ (98); $a=\frac{t}{2}\pm d$; and $d=\frac{t}{c}\sqrt{\left\{\left(\frac{c^2}{2}+o\right)\left(\frac{c^2}{2}-o\right)\right\}}$ (99); $t=\frac{ca}{o^2}\left\{\frac{c}{2}+\sqrt{\left(\frac{c^2}{4}-o^2\right)}\right\}$ (100); $c=\left\{\frac{ot}{\sqrt{(t-a)a}}\right\}$ (101).

Parabola.—Let $p=$ parameter, a, and $a'=$ abcissas, o and o' = ordinates, $b=$ base, = double ordinate, $l=$ length of parabolic curve, $p=\frac{o^2}{a}$ (102); $o'=o\sqrt{\left(\frac{a'}{a}\right)}$ (103); $a'=a\left(\frac{o'}{o}\right)^2$ (104); $A=\frac{2ab}{3}$ (105); and $l=2\sqrt{\left(o^2+\frac{4a^2}{3}\right)}$ (106).

Hyperbola.—Symbols same as in ellipse.

$o=\frac{c}{t}\sqrt{(t+a)\,a}$ (107); $a=\frac{t}{2}\pm d$; and $d=\frac{t}{c}\sqrt{\left(\frac{c^2}{4}+o^2\right)}$ (108); $c=\frac{ot}{\sqrt{(t+a)\,a}}$ (109); $t=\frac{ca}{o^2}\left\{\frac{c}{2}\pm\sqrt{\left(\frac{c^2}{4}+o^2\right)}\right\}$ (110); and $A=4ca\left\{\frac{3\sqrt{7a\,(7t+5a)}+4\sqrt{ta}}{75t}\right\}$ (111.)

Regular solids.—Let $s=$ surface, $v=$ volume, $e=$ one edge

Tetraedron.—$V=\frac{e^3\sqrt{2}}{12}$ (112); and $s=e^2\sqrt{3}$ (113). *Hexaedron or cube.*—$V=e^3$ (114); $s=6\,e^2$ (115). *Octaedron.*—$V=\frac{e^3\sqrt{2}}{3}$ (116); $s=2e^2\sqrt{3}$ (117).

Dodecaedron.—$V=5e^3\times 1.53262$ (118); $s=15e^2\times 1.376385$ (119).

Icosaedron.—$V=\frac{5e^3}{6}\times 2.61803$ (120); and $s=5e^2\sqrt{3}$