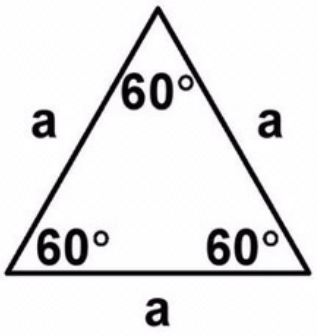
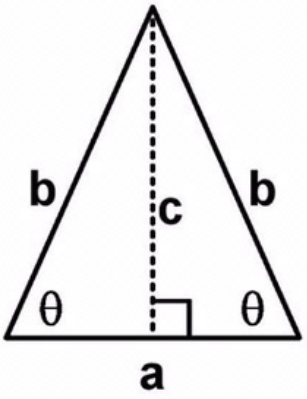
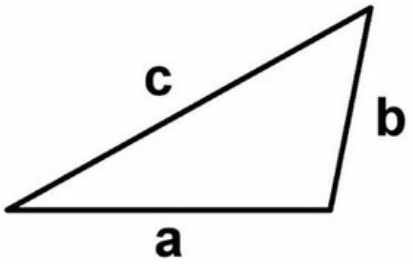


$$A = \frac{\sqrt{3}}{4}a^2$$

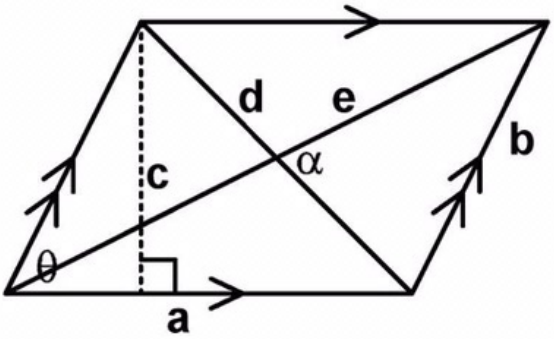


$$A = \frac{1}{2}ac = \frac{1}{2}ab\sin\theta$$

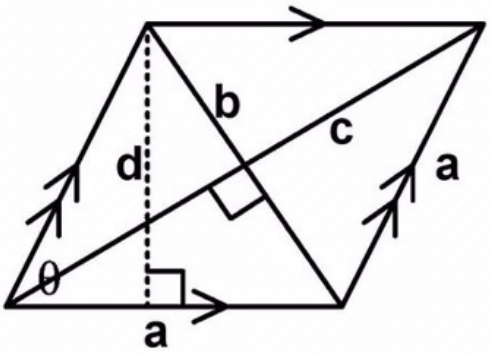


$$A = \sqrt{s(s-a)(s-b)(s-c)},$$

$$s = \frac{(a+b+c)}{2}$$

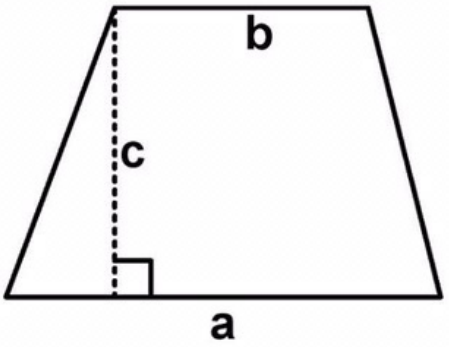


$$A = ac = ab\sin\theta = \frac{1}{2}de\sin\alpha$$

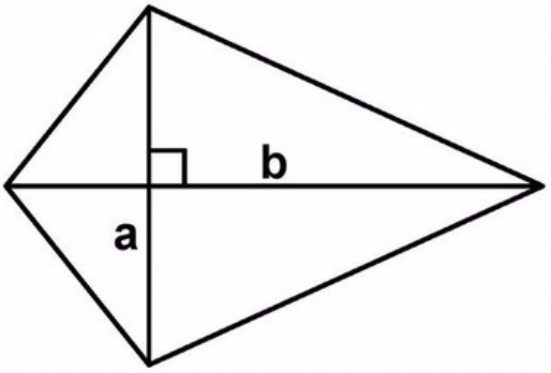


$$A = ad = a^2\sin\theta = \frac{1}{2}bc,$$

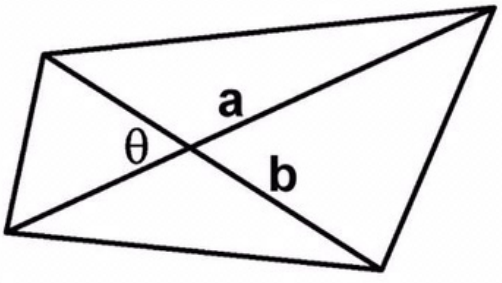
$$d = a\sin\theta = \frac{bc}{2a}$$



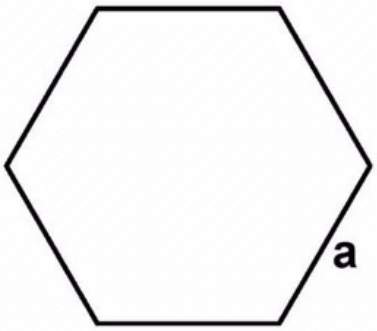
$$A = \frac{1}{2}c(a+b)$$



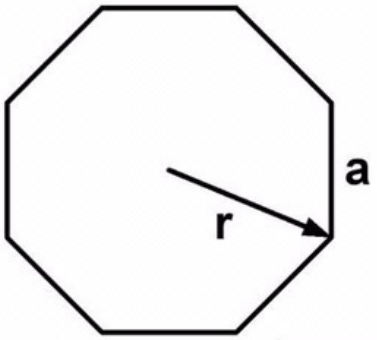
$$A = \frac{1}{2}ab$$



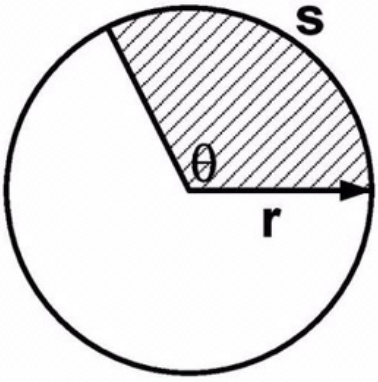
$$A = \frac{1}{2}ab\sin\alpha$$



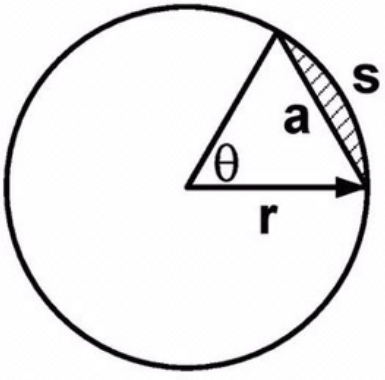
$$A = \frac{3\sqrt{3}}{2}a^2$$



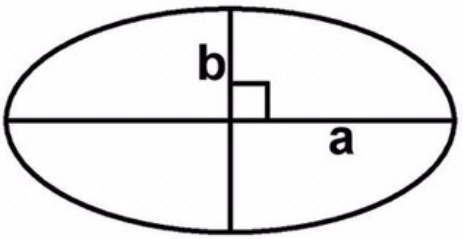
$$A = \frac{1}{2}nr^2 \sin\left(\frac{2\pi}{n}\right) = \frac{na}{2}\sqrt{r^2 - \left(\frac{a^2}{4}\right)}$$



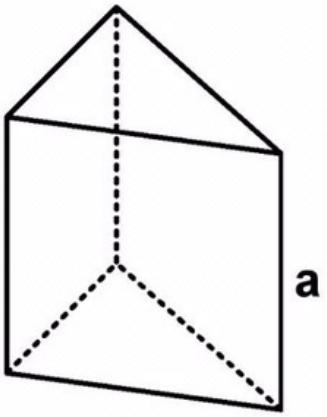
$$A = \frac{1}{2}rs = \frac{\theta}{360°}\pi r^2$$



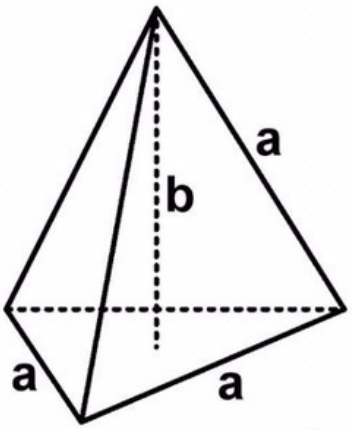
$$A = \frac{r^2}{2}\left(\frac{\theta\pi}{180°} - \sin\theta\right)$$



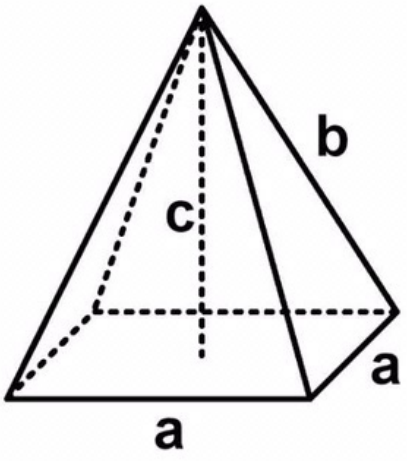
$$A = \pi ab$$



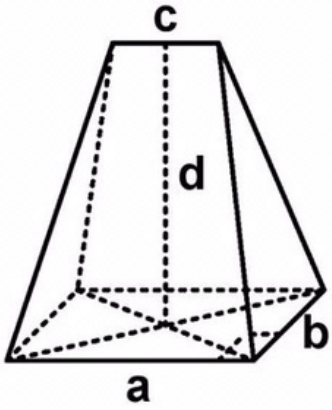
$$A = Perimeter \cdot a + 2A_{base}, V = A_{base} \cdot a$$



$$A = \sqrt{3}\,a^2, V = \frac{1}{3}A_{base} \cdot b = \frac{a^3}{6\sqrt{2}}$$

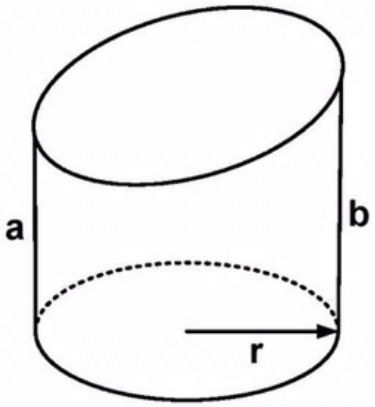


$$A = \frac{1}{4}na\sqrt{4b^2 - a^2} + A_{base}, V = \frac{1}{3}A_{base} \cdot c$$



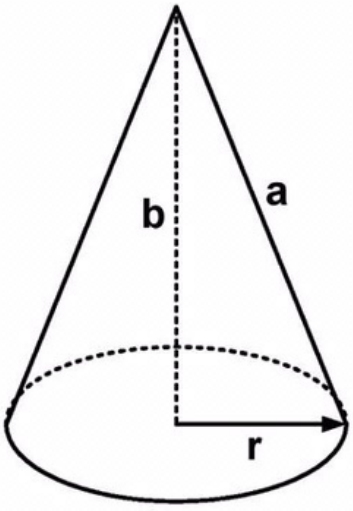
$$A=\frac{1}{2}(a+c)\sqrt{4d^2+b^2}+$$

$$\frac{b}{2}\sqrt{4d^2+(a-c)^2}+ab, V=\frac{bd}{6}(2a+c)$$

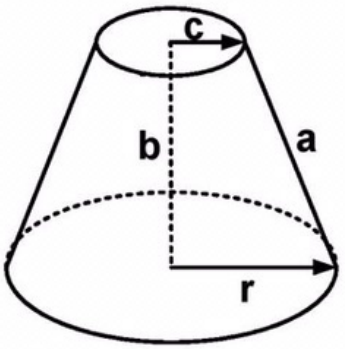


$$A=\pi r\left(a+b+r+\sqrt{r^2+\left(\frac{b-a}{2}\right)^2}\right),$$

$$V=\frac{\pi r^2}{2}(a+b)$$

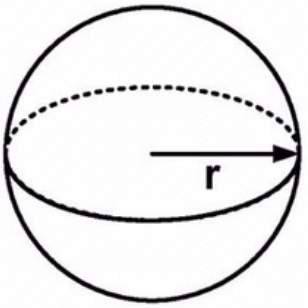


$$A=\pi r(a+r), V=\frac{1}{3}\pi r^2 b$$

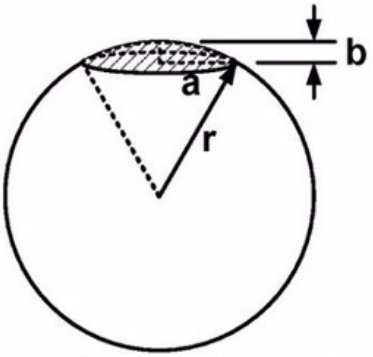


$$A=\pi(r^2+c^2+a(r+c)),$$

$$V=\frac{\pi b}{3}(r^2+rc+c^2)$$

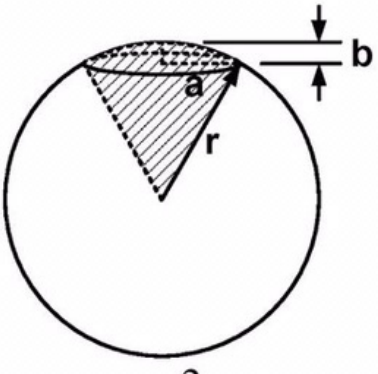


$$A=4\pi r^2, V=\frac{4}{3}\pi r^3$$

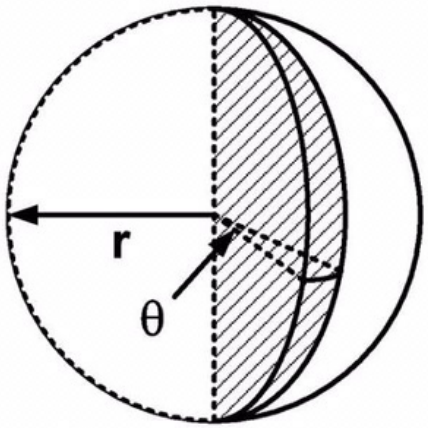


$$A=\pi(b^2+2a^2)=\pi(2rb+a^2),$$

$$V=\frac{\pi}{3}b^2(3r-b)=\frac{\pi}{6}b(3a^2+b^2)$$



$$A=\pi r(2b+a), V=\frac{2}{3}\pi r^2 b$$



$$A = \pi r^2 + \frac{\theta}{90^\circ}\pi r^2, V = \frac{\theta}{270^\circ}\pi r^3$$

ระยะตั้งฉากจากจุด (x_1, y_1) ไปยังเส้นตรง

$$Ax + By + C = 0$$

$$d = \frac{|Ax_1 + By_1 + C|}{\sqrt{A^2 + B^2}}$$

ระยะตั้งฉากระหว่างเส้นตรงขนานกัน

$$d = \frac{|C_1 - C_2|}{\sqrt{A^2 + B^2}}$$

สมการผ่านจุดตัดเส้นตรง

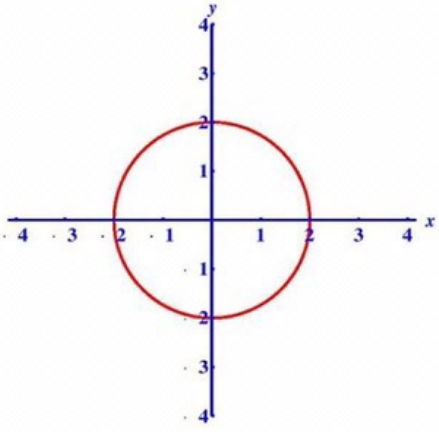
$$A_1x + B_1y + C_1 = k(A_2x + B_2y + C_2)$$

สมการเส้นตรงที่แบ่งครึ่งมุมของเส้นตรงตัดกัน

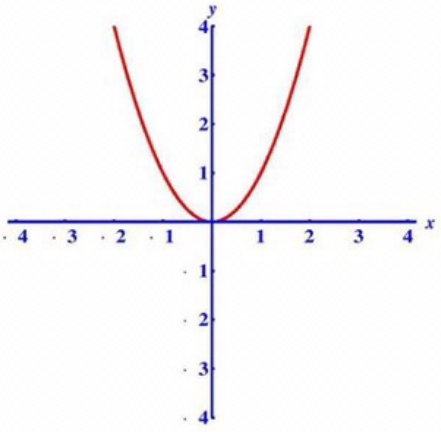
$$\frac{|A_1x + B_1y + C_1|}{\sqrt{A_1{}^2 + B_1{}^2}} = \frac{|A_2x + B_2y + C_2|}{\sqrt{A_2{}^2 + B_2{}^2}}$$

มุมระหว่างเส้นตรงตัดกัน

$$\tan\theta = \frac{m_2 - m_1}{1 + m_1m_2}$$

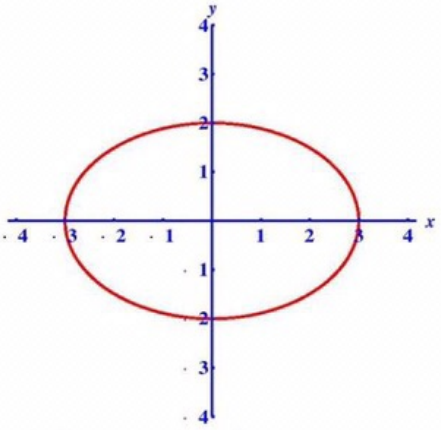


วงกลม: $(x-h)^2 + (y-k)^2 = r^2$



พาราโบลา: $(y-k) = \frac{1}{4c}(x-h)^2$

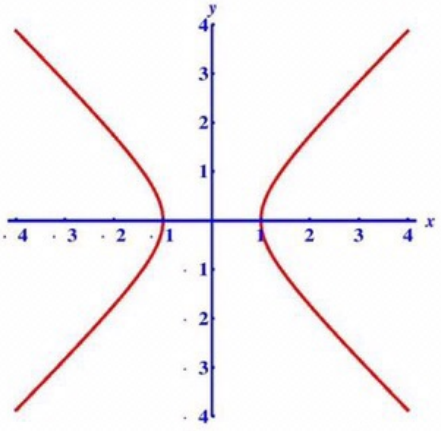
Focus $|c|$, Latus Rectum $|4c|$



วงรี: $\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$

Focus $c^2 = a^2 - b^2$, Eccentricity c/a

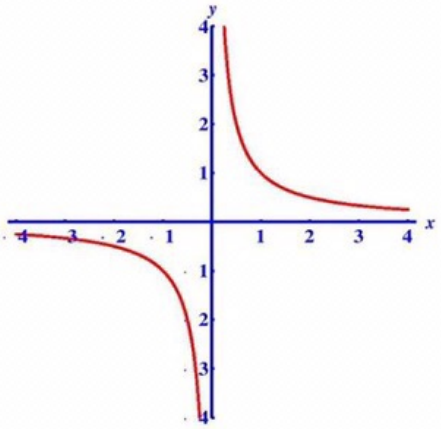
Latus Rectum $2b^2/a$



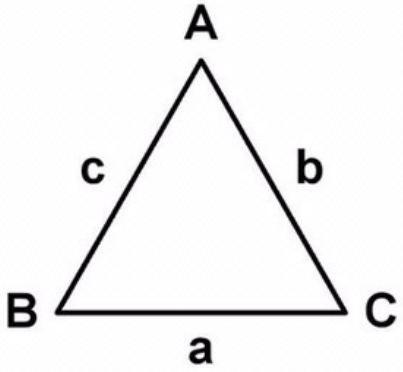
ไฮเปอร์โบลา: $\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = 1$

Focus $c^2 = a^2 + b^2$, Eccentricity c/a

Latus Rectum $2b^2/a$



ไฮเปอร์โบลามุมฉาก: $(x-h)(y-k)=C$



Law of Sines

$$\frac{a}{\sin A}=\frac{b}{\sin B}=\frac{c}{\sin C}$$

Law of Cosines

$$a^2=b^2+c^2-2bc\cos A$$

$$\sin^2 A+\cos^2 A=1$$

$$\sec^2 A-\tan^2 A=1$$

$$\operatorname{cosec}^2 A-\cot^2 A=1$$

$$\sin(A+B)=\sin A\cos B+\cos A\sin B$$

$$\sin(A-B)=\sin A\cos B-\cos A\sin B$$

$$\cos(A+B)=\cos A\cos B-\sin A\sin B$$

$$\cos(A-B)=\cos A\cos B+\sin A\sin B$$

$$2\sin A\cos B=\sin(A+B)+\sin(A-B)$$

$$2\cos A\sin B=\sin(A+B)-\sin(A-B)$$

$$2\cos A\cos B=\cos(A+B)+\cos(A-B)$$

$$2\sin A\sin B=\cos(A-B)-\cos(A+B)$$

$$\sin A+\sin B=2\sin\left(\frac{A+B}{2}\right)\cos\left(\frac{A-B}{2}\right)$$

$$\sin A-\sin B=2\cos\left(\frac{A+B}{2}\right)\sin\left(\frac{A-B}{2}\right)$$

$$\cos A+\cos B=2\cos\left(\frac{A+B}{2}\right)\cos\left(\frac{A-B}{2}\right)$$

$$\cos A-\cos B=-2\sin\left(\frac{A+B}{2}\right)\sin\left(\frac{A-B}{2}\right)$$

$$\tan(A\pm B)=\frac{\tan A\pm\tan B}{1\mp\tan A\tan B}$$

$$\cot(A\pm B)=\frac{\cot A\cot B\mp 1}{\cot B\pm\cot A}$$

$$\sin 2A=2\sin A\cos A=\frac{2\tan A}{1+\tan^2 A}$$

$$\cos 2A=\cos^2 A-\sin^2 A=2\cos^2 A-1$$

$$=1-2\sin^2 A=\frac{1-\tan^2 A}{1+\tan^2 A}$$

$$\tan 2A=\frac{2\tan A}{1-\tan^2 A}$$

$$\cot 2A=\frac{\cot^2 A-1}{2\cot A}$$

$$\sin\frac{A}{2}=\pm\sqrt{\frac{1-\cos A}{2}}$$

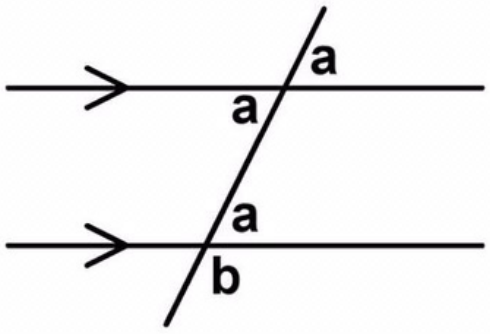
$$\cos\frac{A}{2}=\pm\sqrt{\frac{1+\cos A}{2}}$$

$$\tan\frac{A}{2}=\pm\sqrt{\frac{1-\cos A}{1+\cos A}}=\frac{\sin A}{1+\cos A}$$

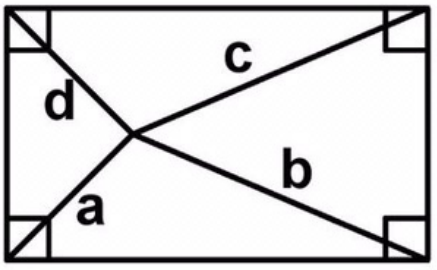
$$=\frac{1-\cos A}{\sin A}=\operatorname{cosec} A-\cot A$$

$$\cot\frac{A}{2}=\pm\sqrt{\frac{1+\cos A}{1-\cos A}}=\frac{\sin A}{1-\cos A}$$

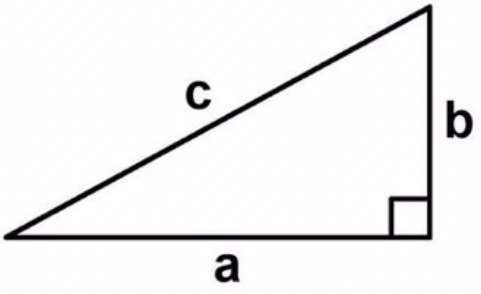
$$=\frac{1+\cos A}{\sin A}=\operatorname{cosec} A+\cot A$$



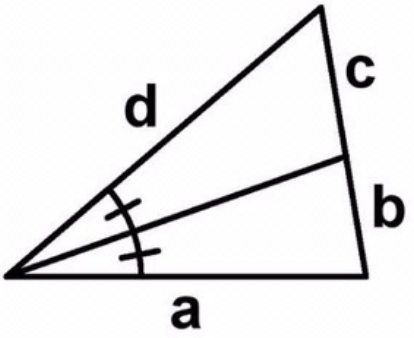
$a+b=180°$



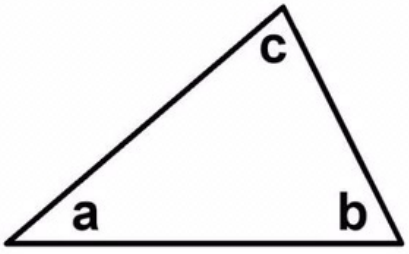
$a^2+c^2=b^2+d^2$



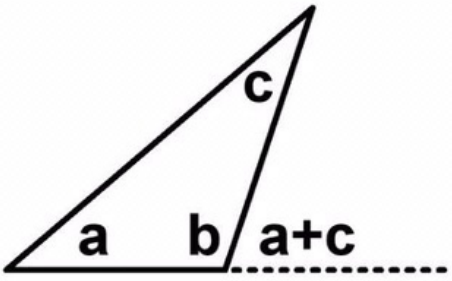
$a^2+b^2=c^2$

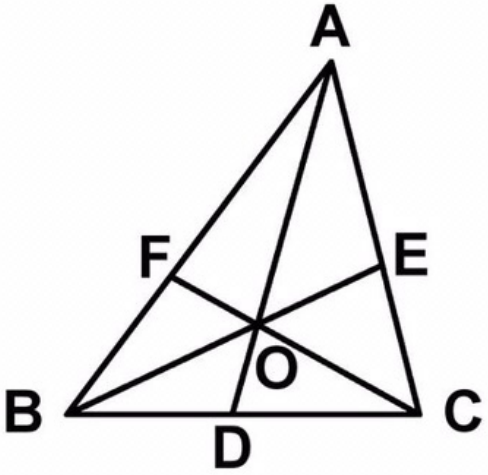


$\frac{b}{a}=\frac{c}{d}$



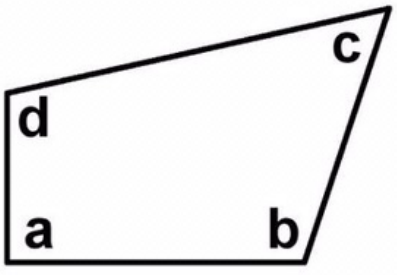
$a+b+c=180°$





$$\frac{AO}{OD}=\frac{AF}{FB}+\frac{AE}{EC},$$

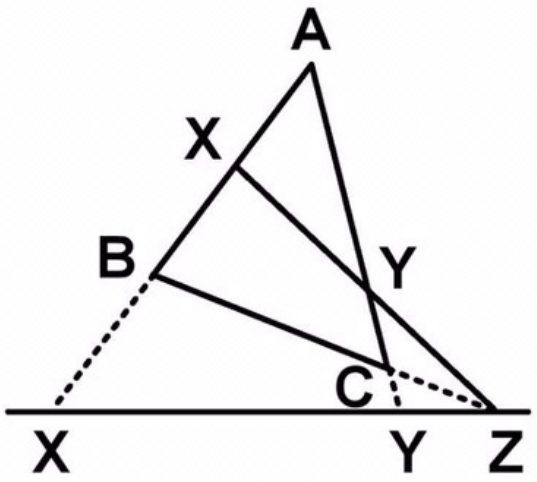
$$\frac{OD}{AD}+\frac{OE}{BE}+\frac{OF}{CF}=1,$$



$a+b+c+d=360°$

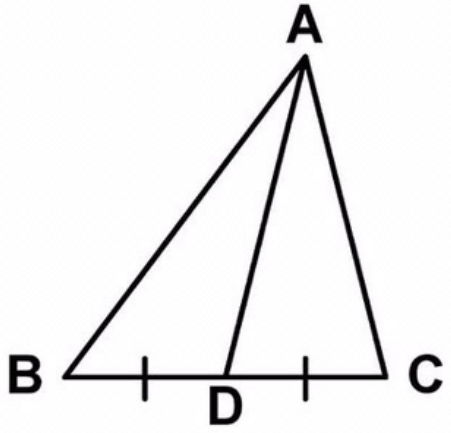
Ceva's Theorem

$$\frac{AF}{FB}\cdot\frac{BD}{DC}\cdot\frac{CE}{EA}=1$$



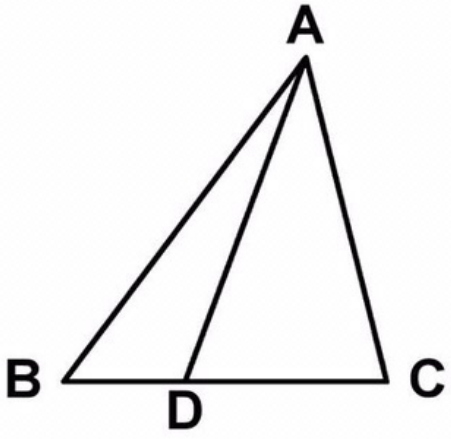
Menelaus's Theorem

$$\frac{BZ}{CZ}\cdot\frac{CY}{AY}\cdot\frac{AX}{BX}=1$$



Pappus's Theorem

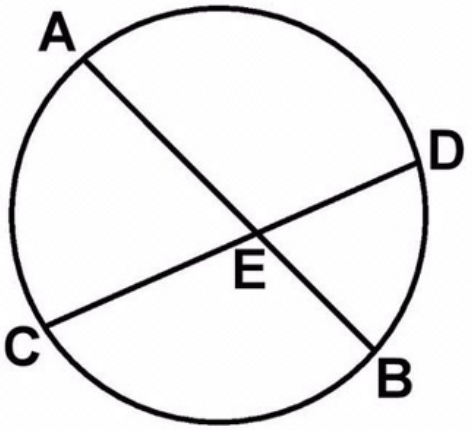
$$AB^2+AC^2=2(AD^2+BD^2)$$



Stewart's Theorem

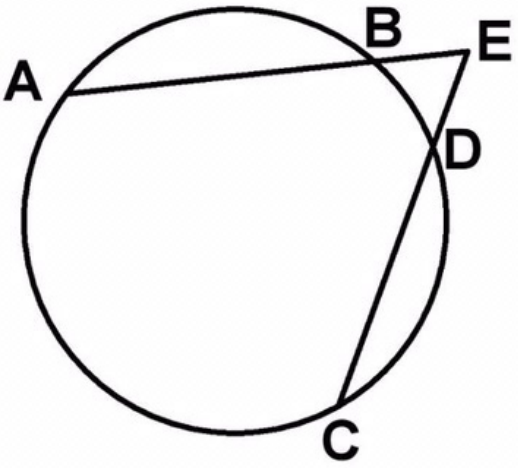
$$BC(AD^2+BD\cdot DC)=$$

$$DC\cdot AB^2+BD\cdot AC^2$$



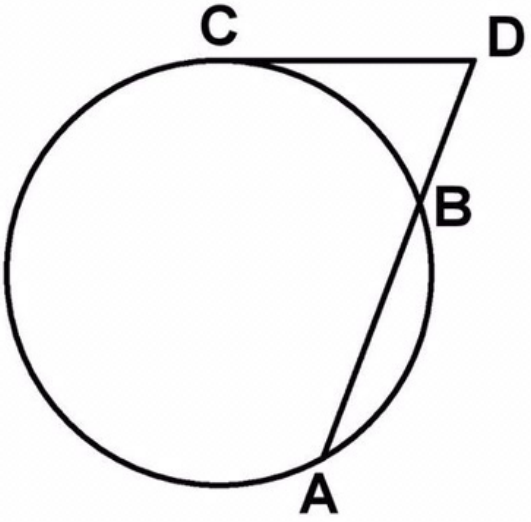
Power of Point

$$AE\cdot EB=CE\cdot ED$$



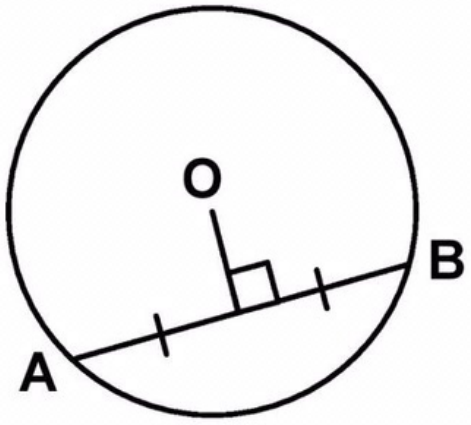
Power of Point

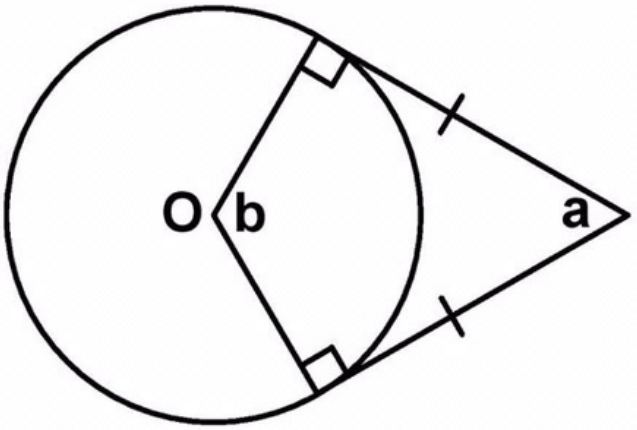
$$AE\cdot BE=CE\cdot DE$$



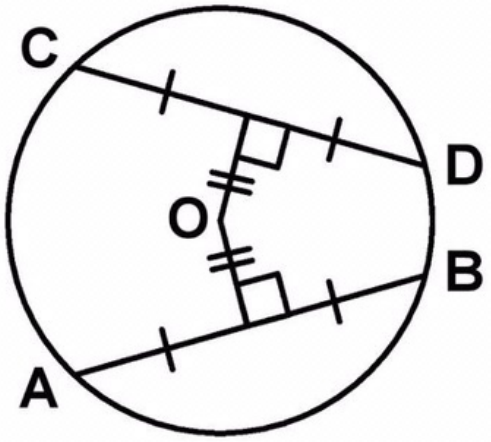
Power of Point

$$AD\cdot BD=CD^2$$

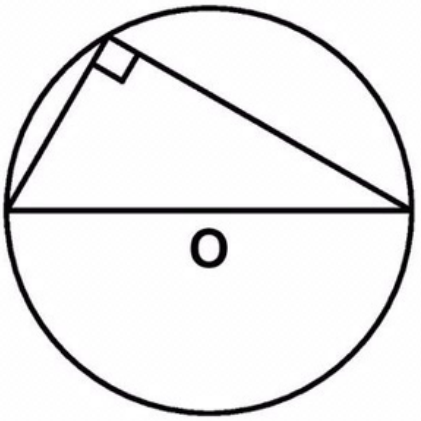


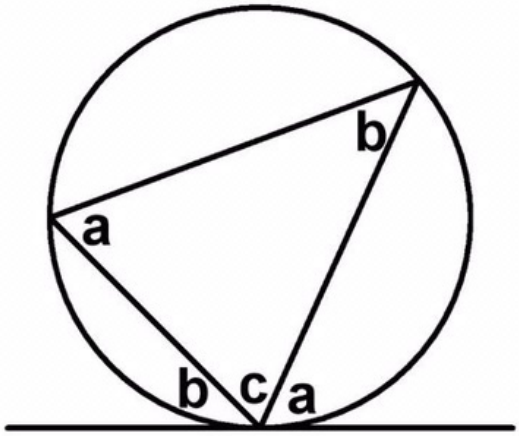


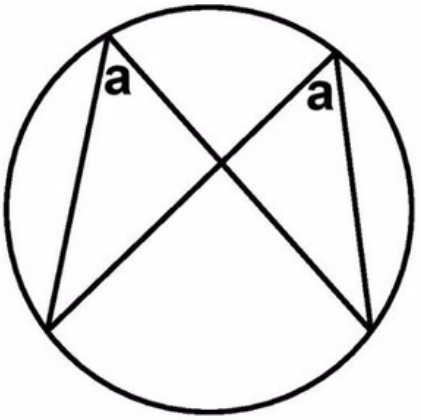
$a+b=180°$

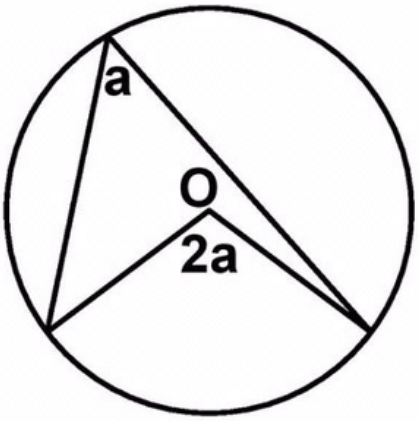


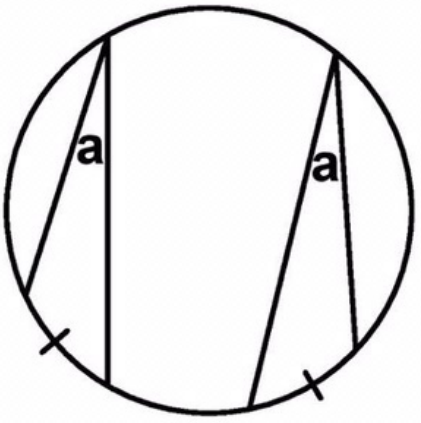
$AB=CD$

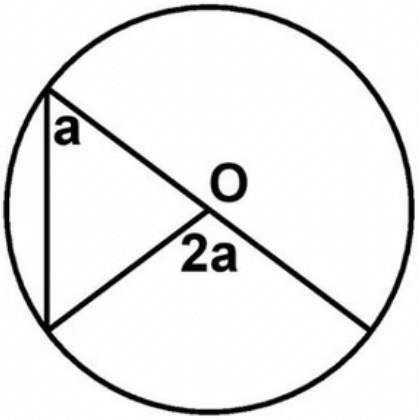


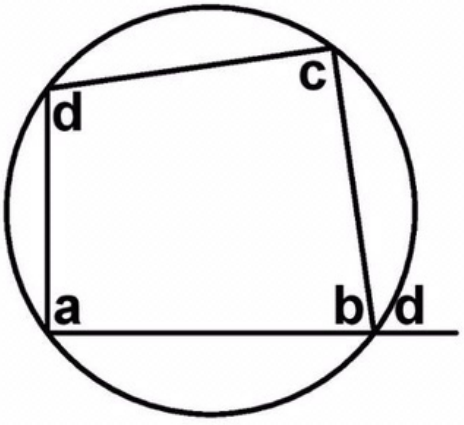




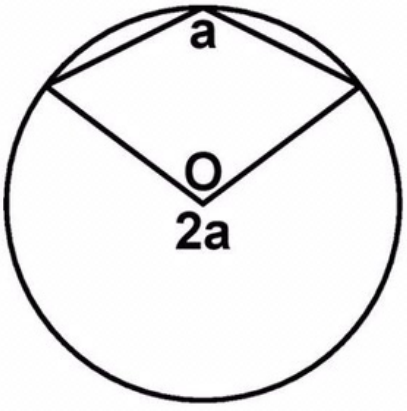


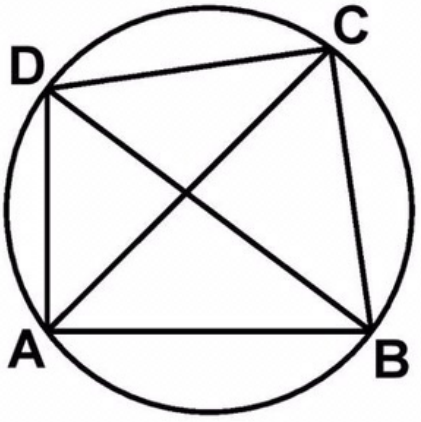






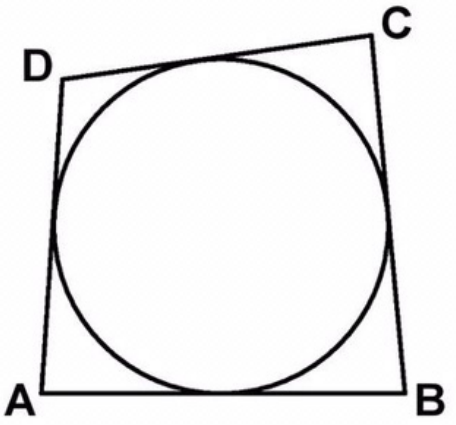
$$a + c = b + d = 180°$$



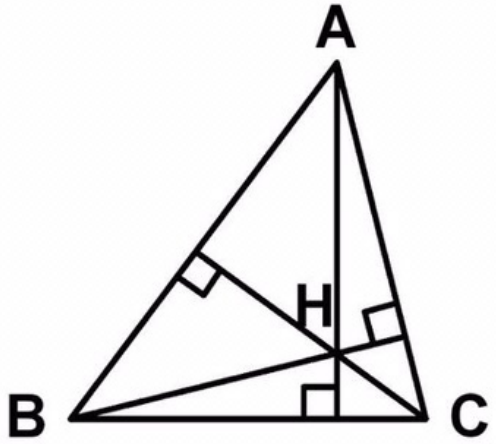


Ptolemy's Theorem

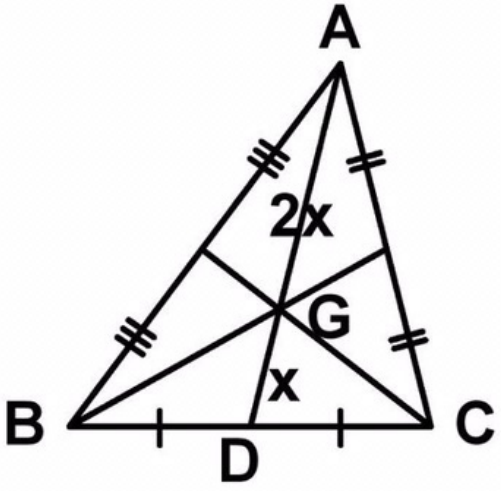
$$AC \cdot BD = AB \cdot CD + BC \cdot AD$$



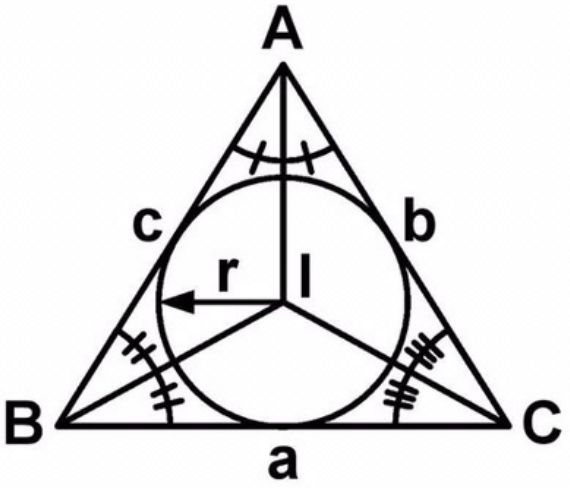
$AB + CD = BC + AD$



Orthocenter

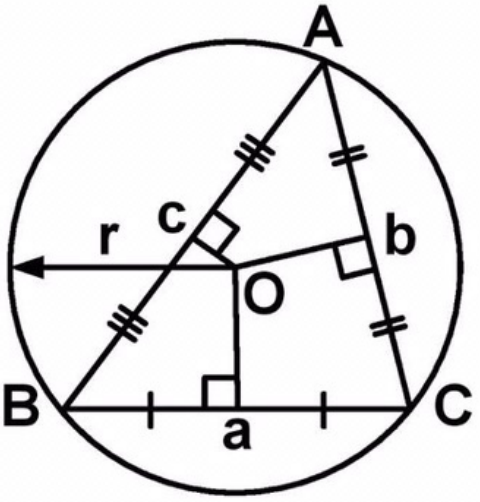


Centroid



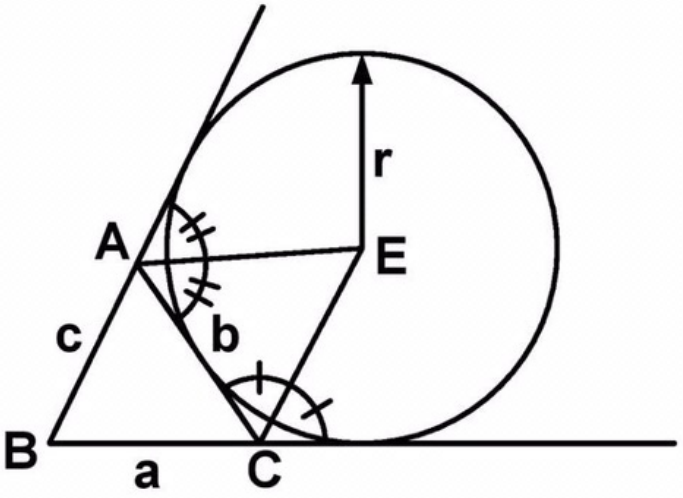
Incenter

$$r = \frac{2(\text{Area of } \Delta ABC)}{a+b+c}$$



Circumcenter

$$r = \frac{abc}{4(\text{Area of } \Delta ABC)}$$



Excenter

$$r = \frac{2(\text{Area of } \Delta ABC)}{a+c-b}$$

$|a| \geq 0, |a| = 0 \leftrightarrow a = 0$

$|-a| = |a|, -|a| \leq a \leq |a|$

$|a+b| \leq |a| + |b|$

$|a-b| \geq \| a| - |b| \|$

$|ab| = |a||b|$

$\left|\frac{a}{b}\right| = \frac{|a|}{|b|}$

$|a|^2 = a^2, \sqrt{a^2} = |a|$

$a \mid 0, \quad 1 \mid a, \quad a \mid a$

$a \mid 1, \quad a = \pm 1$

ถ้า $a \mid b$ และ $b \mid c$ แล้ว $a \mid c$

ถ้า $a \mid b$ และ $c \mid d$ แล้ว $ac \mid bd$

ถ้า $a \mid (b+c)$ และ $a \mid b$ แล้ว $a \mid c$

$a \mid b$ และ $b \mid a$ ก็ต่อเมื่อ $a = \pm b$

ถ้า $a \mid b$ และ $b \neq 0$ แล้ว $|a| \leq |b|$

ถ้า $a \mid b$ และ $a \mid c$ แล้ว $a \mid (bx+cy)$

เมื่อ $x, y \in I$

$a^m \cdot a^n = a^{m+n}$

$\frac{a^m}{a^n} = a^{m-n}$

$(a \cdot b)^n = a^n \cdot b^n$

$a^0 = 1, a \neq 0$

$(a^m)^n = a^{mn}$

$a^{-n} = \frac{1}{a^n}, a \neq 0$

$\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}, b \neq 0$

$\sqrt[n]{x^n} = |x|$ เมื่อ n เป็นจำนวนคู่

$\sqrt[n]{x^n} = x$ เมื่อ n เป็นจำนวนคี่

ถ้า $a > 1; a^m > a^n \rightarrow m > n$

ถ้า $0 < a < 1; a^m > a^n \rightarrow m < n$

$(x+y)^2 = x^2 + 2xy + y^2$

$(x+y)^3 = x^3 + 3x^2y + 3xy^2 + y^3$

$(x+y)^4 = x^4 + 4x^3y + 6x^2y^2 + 4xy^3 + y^4$

$(x+y)^5 = x^5 + 5x^4y + 10x^3y^2 + 10x^2y^3 + 5xy^4 + y^5$

$(x+y)^6 = x^6 + 6x^5y + 15x^4y^2 + 20x^3y^3 + 15x^2y^4 + 6xy^5 + y^6$

$(x-y)^2 = x^2 - 2xy + y^2$

$(x-y)^3 = x^3 - 3x^2y + 3xy^2 - y^3$

$(x-y)^4 = x^4 - 4x^3y + 6x^2y^2 - 4xy^3 + y^4$

$(x-y)^5 = x^5 - 5x^4y + 10x^3y^2 - 10x^2y^3 + 5xy^4 - y^5$

$(x-y)^6 = x^6 - 6x^5y + 15x^4y^2 - 20x^3y^3 + 15x^2y^4 - 6xy^5 + y^6$

$x^2 + y^2 = (x+y)^2 - 2xy$

$= (x-y)^2 + 2xy$

$x^3 + y^3 = (x+y)(x^2 - xy + y^2)$

$x^4 + y^4 = ((x+y)^2 - 2xy)^2 - 2x^2y^2$

$x^5 + y^5 = (x+y)(x^4 - x^3y + x^2y^2 - xy^3 + y^4)$

$x^6 + y^6 = (x^2 + y^2)(x^4 - x^2y^2 + y^4)$

$x^2 - y^2 = (x+y)(x-y)$

$$x^3 - y^3 = (x-y)\,(x^2 + x\,y\, + y^2)$$

$$x^4 - y^4 = (x-y)\,(x^3 + x^2\,y + x\,y^2 + y^3)$$
$$= (x + y)\,(x-y)\,(x^2 + y^2)$$

$$x^5 - y^5 = (x-y)\,(x^4 + x^3\,y + x^2\,y^2 + x\,y^3 + y^4)$$

$$x^6 - y^6 = (x-y)\,(x^5 + x^4\,y + x^3\,y^2 + x^2\,y^3 + x\,y^4 + y^5)$$
$$= (x^2 - y^2)\,(x^4 + x^2\,y^2 + y^4)$$
$$= (x+y)\,(x-y)\,(x^2 + x\,y + y^2)\,(x^2 - x\,y + y^2)$$

$$(x+y+z)^2 = x^2 + y^2 + z^2 + 2(x\,y + y\,z + z\,x)$$

$$(x+y-z)^2 = x^2 + y^2 + z^2 + 2(x\,y - y\,z - z\,x)$$

$$(x-y-z)^2 = x^2 + y^2 + z^2 + 2(-x\,y + y\,z - z\,x)$$

$$(x+y+z)^3 = x^3 + y^3 + z^3 + 3(x+y)(y+z)(z+x)$$

$$x^2 + y^2 + z^2 = (x+y+z)^2 - 2(x\,y + y\,z + z\,x)$$

$$x^3 + y^3 + z^3 - 3\,x\,y\,z = (x + y + z)\,(x^2 + y^2 + z^2 - (x\,y + y\,z + z\,x))$$
$$= \frac{1}{2}(x + y + z)\,((x-y)^2 + (y-z)^2 + (z-x)^2)$$

$$\frac{x^2 + y^2 + z^2}{2} \cdot \frac{x^3 + y^3 + z^3}{3} = \frac{x^5 + y^5 + z^5}{5},\ x + y + z = 0$$

$$x^4 + x^2 + 1 = (x^2 + x + 1)\,(x^2 - x + 1)$$

$$x^4 + x^2\,y^2 + y^4 = (x^2 + x\,y + y^2)\,(x^2 - x\,y + y^2)$$

$$(w^2 + x^2)\,(y^2 + z^2) = (x\,y + w\,z)^2 + (w\,y - x\,z)^2$$

$$(x + y)\,(y + z)\,(z + x) = (x + y + z)\,(x\,y + y\,z + z\,x) - x\,y\,z$$

$$(x-y)\,(y-z)\,(z-x) = x^2\,(z-y) + y^2\,(x-z) + z^2\,(y-x)$$

$$(x-y)\,(y-z)\,(z-x)\,(x+y+z) = x^3\,(z-y) + y^3\,(x-z) + z^3\,(y-x)$$

$$(x+y)(y+z)(z+x)(x-y)(y-z)(z-x)$$
$$= x^2\,y^2\,(y^2 - x^2) + y^2\,z^2\,(z^2 - y^2) + z^2\,x^2\,(x^2 - z^2)$$

$$(x+y+z)(x+y-z)(y+z-x)(z+x-y)$$
$$= 2(x^2\,y^2 + y^2\,z^2 + z^2\,x^2) - (x^4 + y^4 + z^4)$$

$$(x_1^2 + x_2^2 + x_3^2 + x_4^2)(y_1^2 + y_2^2 + y_3^2 + y_4^2) =$$
$$(x_1\,y_1 + x_2\,y_2 + x_3\,y_3 + x_4\,y_4)^2 +$$
$$(x_1\,y_2 - x_2\,y_1 + x_3\,y_4 - x_4\,y_3)^2 +$$
$$(x_1\,y_3 - x_2\,y_4 - x_3\,y_1 + x_4\,y_2)^2 +$$
$$(x_1\,y_4 + x_2\,y_3 - x_3\,y_2 - x_4\,y_1)^2$$

$$(w^2 + x^2 + y^2 + z^2)^2 = (w^2 + x^2 - y^2 - z^2)^2 + (2\,w\,y + 2\,x\,z)^2 + (2\,w\,z - 2\,x\,y)^2$$

สมการพหุนามกำลังสอง

$$ax^2+bx+c=0$$

ผลคูณคำตอบคือ $\frac{c}{a}$

ผลบวกคำตอบ $-\frac{b}{a}$

ผลบวกคำตอบยกกำลังสอง $\frac{b^2-2ac}{a^2}$

ผลบวกคำตอบยกกำลังสาม $\frac{-(b^3-3abc)}{a^3}$

ผลบวกคำตอบยกกำลังสี่ $\frac{b^4-4ab^2c+2a^2c^2}{a^4}$

ผลบวกคำตอบยกกำลังลบหนึ่ง $-\frac{b}{c}$

ผลบวกคำตอบยกกำลังลบสอง $\frac{b^2-2ac}{c^2}$

สมการพหุนามกำลังสาม

$$ax^3+bx^2+cx+d=0$$

ผลคูณคำตอบคือ $-\frac{d}{a}$

ผลบวกคำตอบ $-\frac{b}{a}$

ผลบวกคำตอบยกกำลังสอง $\frac{b^2-2ac}{a^2}$

ผลบวกคำตอบยกกำลังสาม

$$\frac{-(b^3-3abc+3a^2d)}{a^3}$$

ผลบวกคำตอบยกกำลังสี่

$$\frac{b^4-4ab^2c+2a^2c^2+4a^2bd}{a^4}$$

ผลบวกคำตอบยกกำลังลบหนึ่ง $-\frac{c}{d}$

ผลบวกคำตอบยกกำลังลบสอง $\frac{c^2-2bd}{d^2}$

สมการพหุนามกำลังสี่

$$ax^4+bx^3+cx^2+dx+e=0$$

ผลคูณคำตอบคือ $\frac{e}{a}$

ผลบวกคำตอบ $-\frac{b}{a}$

ผลบวกคำตอบยกกำลังสอง $\frac{b^2-2ac}{a^2}$

ผลบวกคำตอบยกกำลังสาม

$$\frac{-(b^3-3abc+3a^2d)}{a^3}$$

ผลบวกคำตอบยกกำลังสี่

$$\frac{b^4-4ab^2c+2a^2c^2+4a^2bd}{a^4}$$

ผลบวกคำตอบยกกำลังลบหนึ่ง $-\frac{d}{e}$

ผลบวกคำตอบยกกำลังลบสอง $\frac{d^2-2ce}{e^2}$

ลำดับเลขคณิต $a_n=a_1+(n-1)d$

อนุกรมเลขคณิต $S_n=\frac{n}{2}\left(2a_1+(n-1)d\right)$

ลำดับเรขาคณิต $a_n=a_1\cdot r^{n-1}$

อนุกรมเรขาคณิต $S_n=a_1\frac{(1-r^n)}{1-r},\ r\neq 1$

$$\sum_{i=1}^{n} i=\frac{n}{2}(n+1)$$

$$\sum_{i=1}^{n} i^2=\frac{n}{6}(n+1)(2n+1)=\frac{n^3}{3}+\frac{n^2}{2}+\frac{n}{6}$$

$$\sum_{i=1}^{n} i^3=\left(\frac{n}{2}(n+1)\right)^2$$

$$P_{n,n} = n!$$

$$P_{n,r} = \frac{n!}{(n-r)!}$$

เรียงสับเปลี่ยนแบบวงกลม $(n-1)!$

เรียงสับเปลี่ยนซ้ำ $\frac{n!}{n_1!n_2!\ldots n_k!}$

แบ่งกลุ่มซ้ำ $\frac{n!}{n_1!n_2!\ldots n_k!m_1!m_2!\ldots m_l!}$

เมื่อ m_i คือจำนวนกลุ่มที่ซ้ำยกเว้นแต่ละกลุ่มทำงานที่แตกต่างกัน

$$C_{n,r} = \frac{n!}{(n-r)!r!}$$

$$\binom{n}{r} = \binom{n}{n-r}$$

$$\binom{n}{r-1} + \binom{n}{r} = \binom{n+1}{r}$$

$$\binom{n}{1} + \binom{n}{2} + \ldots + \binom{n}{n} = 2^n - 1$$

$$\binom{r}{r} + \binom{r+1}{r} + \ldots + \binom{n}{r} = \binom{n+1}{r+1}$$

แบ่งของได้อย่างน้อยคนละ 1 ชิ้น

$C_{n-1,r-1}$

แบ่งของโดยไม่มีเงื่อนไข

$C_{n+r-1,r-1}$

$$P(E) = \frac{n(E)}{n(S)}$$

ทำซ้ำ n ครั้ง สำเร็จ r ครั้ง

$$P = \binom{n}{r} p^r q^{n-r}$$

ค่าเฉลี่ยเลขคณิต (Mean) $\bar{x} = \frac{\sum_{i=1}^{N} x_i}{N}$

ค่าเฉลี่ยเลขคณิต (Mean) $\bar{x} = \frac{\sum_{i=1}^{n} f_i x_i}{N}$

มัธยฐาน (Median) $= L + \left(\frac{\frac{N}{2} - \sum f_L}{f_M} \right) I$

(ถ้าไม่แจกแจงความถี่ใช้ $\frac{(N+1)}{2}$)

ฐานนิยม (Mode) $= L + \left(\frac{d_1}{d_1 + d_2} \right) I$

$$G.M. = \sqrt[N]{x_1 \cdot x_2 \cdot \ldots \cdot x_N}$$

$$H.M. = \frac{1}{\frac{1}{N}\left(\frac{1}{x_1} + \frac{1}{x_2} + \ldots + \frac{1}{x_N} \right)}$$

ค่ากึ่งกลางพิสัย $= \frac{x_{\max} + x_{\min}}{2}$

พิสัย $= x_{\max} - x_{\min}$

$$P_r = L + \left(\frac{\frac{rN}{100} - \sum f_L}{f_{P_r}} \right) I$$

$$S.D. = \sqrt{\frac{\sum_{i=1}^{N} (x_i - \bar{x})^2}{N}}$$

$$= \sqrt{\frac{\sum_{i=1}^{N} x_i^2}{N} - \bar{x}^2}$$

ความแปรปรวน (Variance) $= (S.D.)^2$

ค่ามาตรฐาน $z = \frac{x - \bar{x}}{S.D.}$