TABLA RESÚMEN PARA ABORDAR UN CURSO DE CÁLCULO DIFERENCIAL E INTEGRAL v1.1

POTENCIACIÓN

1. $a^m \cdot a^n = a^{m+n}$
2. $\frac{a^m}{a^n} = a^{m-n}$
3. $(a \cdot b)^n = a^n \cdot b^n$
4. $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$
5. $(a^m)^n = a^{mn}$
6. $a^{-m} = \frac{1}{a^m}$

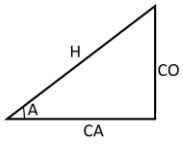
RADICACIÓN

7. $\sqrt[n]{a \cdot b} = \sqrt[n]{a} \cdot \sqrt[n]{b}$
8. $\sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$
9. $\sqrt[m]{\sqrt[n]{a}} = \sqrt[mn]{a}$
10. $\sqrt[n]{a^m} = \left(\sqrt[n]{a}\right)^m = a^{m/n}$
11. $\left(\sqrt[n]{a}\right)^n = a$ si n es impar
12. $\left(\sqrt[n]{a}\right)^n = |a|$ si n es par

LOGARITMACIÓN

13. $\log_a xy = \log_a x + \log_a y$
14. $\log_a \frac{x}{y} = \log_a x - \log_a y$
15. $\log_a x^y = y \log_a x$
16. $\log_a x = \frac{Lnx}{Lna}$

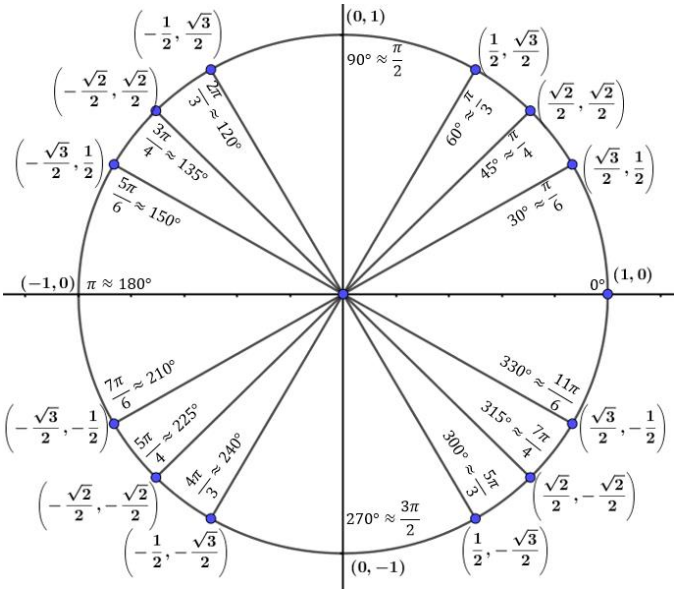
TRIGONOMETRÍA



17. $\text{sen(A)} = \frac{\text{CO}}{\text{H}}$
18. $\cos(\text{A}) = \frac{\text{CA}}{\text{H}}$
19. $\tan(\text{A}) = \frac{\text{CO}}{\text{CA}}$
20. $\cot(\text{A}) = \frac{\text{CA}}{\text{CO}}$
21. $\sec(\text{A}) = \frac{\text{H}}{\text{CA}}$
22. $\csc(\text{A}) = \frac{\text{H}}{\text{CO}}$

23. $sen(A) = \frac{1}{csc(A)}$
24. $cos(A) = \frac{1}{sec(A)}$
25. $tan(A) = \frac{1}{cot(A)} = \frac{sen(A)}{cos(A)}$
26. $cot(A) = \frac{1}{tan(A)} = \frac{cos(A)}{sen(A)}$
27. $sec(A) = \frac{1}{cos(A)}$
28. $csc(A) = \frac{1}{sen(A)}$

29. $sen(-(A)) = -sen(A)$
30. $cos(-(A)) = cos(A)$
31. $(cos(\alpha)), sen(\alpha))$



32. $sen(A) + sen(B) = 2sen\left(\frac{A+B}{2}\right) cos\left(\frac{A-B}{2}\right)$
33. $sen(A) - sen(B) = 2cos\left(\frac{A+B}{2}\right) sen\left(\frac{A-B}{2}\right)$
34. $cos(A) + cos(B) = 2cos\left(\frac{A+B}{2}\right) cos\left(\frac{A-B}{2}\right)$
35. $cos(A) - cos(B) = -2sen\left(\frac{A+B}{2}\right) sen\left(\frac{A-B}{2}\right)$
36. $tan(A) \pm tan(B) = \frac{\sin(A \pm B)}{\cos(A)\cos(B)}$

37. $sen(A \pm B) = \text{sen}(A)\cos(B) \pm \cos(A)\, sen(B)$
38. $cos(A \pm B) = \cos(A)\cos(B) \mp \text{sen}(A)\, sen(B)$
39. $\tan(A \pm B) = \frac{\tan(A) \pm \tan(B)}{1 \mp \tan(A)\tan(B)}$
40. $\cot(A \pm B) = \frac{\cot(A)\cot(B) \mp 1}{cot(B) \pm \cot(A)}$

41. $sen(A)\,\text{sen}(B) = -\frac{1}{2}[cos(A+B) - cos(A-B)]$
42. $cos(A)\cos(B) = \frac{1}{2}[cos(A+B) + cos(A-B)]$
43. $sen(A)\cos(B) = \frac{1}{2}[sen(A+B) + sen(A-B)]$
44. $cos(A)\text{sen(B)} = \frac{1}{2}[sen(A+B) - sen(A-B)]$

45. $sen\left(\frac{A}{2}\right) = \pm\sqrt{\frac{1-\cos(A)}{2}}$
46. $cos\left(\frac{A}{2}\right) = \pm\sqrt{\frac{1+\cos(A)}{2}}$
47. $tan\left(\frac{A}{2}\right) = \pm\sqrt{\frac{1-\cos(A)}{1+\cos(A)}}$

48. $sen^2(A) + cos^2(A) = 1$
49. $sec^2(A) - tan^2(A) = 1$
50. $csc^2(A) - cot^2(A) = 1$

51. $sen(2A) = 2sen(A)\cos(A)$
52. $cos(2A) = cos^2(A) - sen^2(A)$
53. $tan(2A) = \frac{2\tan(A)}{1 - tan^2(A)}$

54. $sen(3A) = 3sen(A) - 4sen^3(A)$
55. $cos(3A) = 4cos^3(A) - 3\cos(A)$
56. $tan(3A) = \frac{3tan(A) - tan^3(A)}{1 - 3tan^2(A)}$

57. $sen^2(A) = \frac{1}{2}[1 - \cos(2A)]$
58. $cos^2(A) = \frac{1}{2}[1 + \cos(2A)]$
59. $sen^3(A) = \frac{1}{4}[3sen(A) - \sin(3A)]$
60. $cos^3(A) = \frac{1}{4}[3cos(A) + \cos(3A)]$