## भिन्छ- ।। धर्मारा न ।। प्रश्राम ७ योशिक त्याति वित्तान प्राचन

\* sin (A+B) = sinAcos B + cos A sinB \*sin (A-B) = sinA cas B - cas A sinB \* cos(A+B) = cos Acos B-sin AsinB \* cas (A-B) = casA cas B + sinAsinB 1-tanA tanB \* ton(A+B) = tanA - tanB \* tan (A-B) cot A cotB-1 \* cot (A+B) Cot B + cotA Drivaro === 1 - 2sin2A  $\frac{\cot A \cot B + 1}{\cot A} = \frac{1 - \tan^2 A}{1 + \tan^2 A}$ \* cot (A-B) cot B- COTA \* sin (A+B) sin (A-B) = sin2A-sinB + a = 0 052B-sin2A 5 \* cos(A+B) cos (A-B) = cos2A+sin2B 35 +sin3A = 3sinA-4sin2A  $= \cos^2 B - \sin^2 A$  $\tan(A+B)\tan(A-B) = \frac{\tan^2 A - \tan^2 B}{1 - \tan^2 A + \tan^2 B}$ \*  $\cot(A+B)\cot(A-B) = \frac{\cot^2 A \cot^2 A - 1}{\cot^2 B - \cot^2 A}$ \* Sin (A+B) + Sin (A-B) = 2 sin A cos B \* sin (A+B) = sin (A-B) = 2 cosA sinB \* Cos (A+B) + cos (A-B) = 2cos Acos B \* cos (A+B) - cos (B-A) = 2 sinAsinB ar, Cos (A-B) - cos (A+B) = 2sin Asin B

\* Sinc + SinD = 2sin C+D cos C-D \*Sinc-sinD= 2cas C+D sin C-D  $\Re \cos C + \cos D = 2\cos \frac{C+D}{2}\cos \frac{C-D}{2}$ New \* cos carcos D = 2 sin c+p sin p-c \* sin2A = 2sinAcosA = 2tonA 1+tanAtonB \* Cos 2A = Cos 2A = sin2A  $= 2005^2 A - 1$  $\frac{1}{2} + \tan 2A = \frac{2 + \tan A}{1 - \tan^2 A}$ \* Cot 2 A = Cot A-1 \* COS 3 A = 41579 A - 3005 A \* tan3A = 3 tan A - tan3A \* cot 3A = Cot A - Beof A 17 in 1 30072A -1 4003A= 3005 A+C053A 4=3, 41 4 sho A = 3 sinA - sin2A 4 = 3-1 

लिहिन्ने श्रमिथि निकास मिलाका कासीका का किन्छ । है निकास प्राप्त पर जानीक # sine rule:  $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} = 2R = \frac{1}{\sin A + \sin B + \sin C}$ # SinA = 2R ; a = 2RSinA ; \* Casine rule:  $\cos A = \frac{b^2 + c^2 - a^2}{2bc}$ ;  $\cos B = \frac{a^2 + c^2 - b^2}{2ac}$ ;  $\cos C = \frac{a + b + c^2}{2ac}$ MS (A B) - COSA GOS B + SINASIAH Sout Famul \* a = bcosc + c cas B & b = acosc + ccos A = c = a cos B + bcos A GETERA (QUARTA 200 DA = 301 1 X CERT X CHOTEOT FATOL + D  $A^{\circ} = \frac{1}{2} absinc \frac{1 - 8foo A foo}{A(30 + 8foo)}$ 1 (α-α) (s-α) (s-α) (s-α) (σ-α) (σ-α) 100 Α(σ) - (σ-α) 100 250=10+b+C  $\frac{\sqrt{40000} + \sqrt{2000} + \sqrt{2000} + \sqrt{2000} - \sqrt{2000} - \sqrt{2000} + \sqrt{2000} +$ \* अविविद्ध वीष्टार्व, R= 40 \* WO: TINK P= 4Rsin Asin Bisin &  $\# \sin \frac{A}{2} = \sqrt{\frac{(3-b)(s-c)}{bc}} + \sin \frac{B}{2} = \sqrt{\frac{(s-c)(s-a)}{5c}} + \sin \frac{c}{2} = \sqrt{\frac{(s-a)(s-b)}{ab}}$  $+\cos\frac{A}{2} = \sqrt{\frac{s(s-a)}{bc}} = \sqrt{\frac{s(s-b)}{ab}} = \sqrt{\frac{s(s-b)}{ab}} = \sqrt{\frac{s(s-c)}{ab}}$ \*  $tan \frac{A}{2} = \frac{(s-b)(s-c)}{\Delta}$ ;  $tan \frac{B}{2} = \frac{(s-a)(s-b)}{2}$ ;  $tan \frac{C}{2} = \frac{(s-a)(s-b)}{2}$ \* tan A = abc 1 63+c2-a2; tanB = 1 abc 1 (2+a2-b2) tance abc 12-c2

\* सम्प्रवार्ड लिविकियं क्ष्मक्रम्थ = 1/2 X यार्ड \* उम्मितार विष्ट्रां साम्यान = b \ 402-62 a = থমান বাসুর দেঘ্য ( कास्म यमाव्य श्रीयाव त्यार्थम्म = अम्यदन्तीर [आम्यदन्तीर स्थित इस् পদ্দেশ্যা = মর্থিদ দার - মর্থনের মার ज्यारम्प = शिर अल्ये क्रेमी (ग्रह्मम्य + ल्याम्रहेशम में धावभारि Sin वा Coo विव । प्रशानिविधारी रिष्ट राव ।  $\frac{\cos\theta \pm \sin\theta}{\sin\theta} = \tan(45 \pm \theta)$ [8 < 45°] cost = sint sind = ± sin their = tan (45 + their) to 2 45 their SING = SINT (W) किंग बहुमाक वोना  $\frac{\cot \theta_{4i} \pm \cot \cot \theta_{2i}}{\cot \theta_{4i} \pm \cot \theta_{2i}} = \tan \left(49 \pm \theta_{4i}\right) \left[\theta > 45^{\circ}\right]$ COS BYS I COSP COS tan 15° = 2-13  $\sin 15^\circ = \cos 75^\circ = \frac{\sqrt{3}-1}{2\sqrt{2}}$ tan(-15°) = 13-2  $\sin 18^\circ = \cos 72^\circ = \frac{\sqrt{5}-1}{4}$ tan 75° = 27/3 ton 7(2) = 16-13+12  $\sin 36^\circ = \cos 54^\circ = \frac{\sqrt{10-2\sqrt{5}}}{4}$  $= \cos 36^{\circ} = \frac{\sqrt{5}+1}{4}$  $\sin 72^\circ = \cos 18^\circ = \frac{\sqrt{20 + 2\sqrt{5}}}{4}$  $\sin 75^{\circ} = \cos 15^{\circ} = \frac{\sqrt{3+1}}{9.19}$ 

For important objective: Example Example = \* 2005 TT = \2+\2+\2+\-(n-1)\RivITT = ; \* 2005 TE = \2+\2+\2+\2+\2  $4 + 2\sin\frac{\pi}{2n} = \sqrt{2-\sqrt{2+\sqrt{2+-(n-2)}}} + \frac{1}{2} + \frac{1$ = # 2 cos 17 = \(\frac{12+\sigma\_2+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_2+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_2+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_2+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_2+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_2+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_2+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_2+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_2+\sigma\_3\)\(\frac{12+\sigma\_3\sigma\_3\)\(\frac{12+\sigma\_3\sigma\_3\sigma\_3\)\(\frac{12+\sigma\_3\sigma\_3\sigma\_3\sigma\_3\sigma\_3\)\(\frac{12+\sigma\_3\ \*  $2\sin\frac{\pi}{3.2^m} = \sqrt{2+\sqrt{2+--(n-2)\pi^2\sqrt{n+3}}}$  3.2 - you (sig 干色) 10 < de Briz = BZO \* a, b, c उमान्त प्रभावन राम, , a+c=2b RANGE CORNAGO ZOM. A C TO TO TO THE POINTS T 加加力主心自动 Smile = एक प्रकें ton 95° = 270 ton 7(2) = -16-73 ेश्या ५ (वर्ष)