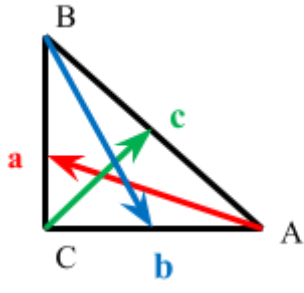


RUMUS – RUMUS TRIGONOMETRI

Nama :

NIM : 2321050

Nilai Sudut Istimewa Trigonometri Kuadran 1											
	0°	30°	45°	60°	90°		0°	30°	45°	60°	90°
$\sin \theta$	0	$\frac{1}{2}$	$\frac{1}{2}\sqrt{2}$	$\frac{1}{2}\sqrt{3}$	1	$\csc \theta$	∞	2	$\sqrt{2}$	$\frac{2}{3}\sqrt{2}$	1
$\cos \theta$	1	$\frac{1}{2}\sqrt{3}$	$\frac{1}{2}\sqrt{2}$	$\frac{1}{2}$	0	$\sec \theta$	1	$\frac{2}{3}\sqrt{2}$	$\sqrt{2}$	2	∞
$\tan \theta$	0	$\frac{1}{3}\sqrt{3}$	1	$\sqrt{3}$	∞	$\cot \theta$	∞	$\sqrt{3}$	1	$\frac{1}{3}\sqrt{3}$	0
Perbandingan Trigonometri						Identitas Trigonometri					
$\sin \theta = \frac{\text{Depan}}{\text{Miring}}$			$\operatorname{Cosec} \theta = \frac{1}{\sin \theta}$			$\tan \theta = \frac{\sin \theta}{\cos \theta}$ $\cot \theta = \frac{\cos \theta}{\sin \theta}$			+= 1		
$\cos \theta = \frac{\text{Samping}}{\text{Miring}}$			$\operatorname{Secan} \theta = \frac{1}{\cos \theta}$						+= $\sec^2 \theta$		
$\tan \theta = \frac{\text{Depan}}{\text{Samping}}$			$\operatorname{Cotan} \theta = \frac{1}{\tan \theta}$						+= $\operatorname{cosec}^2 \theta$		
Luas segitiga						Aturan Cosinus					
						$a^2 = b^2 + c^2 - 2bc \cos A$ $b^2 = a^2 + c^2 - 2ac \cos B$ $c^2 = a^2 + b^2 - 2ab \cos C$					
						Aturan Sinus					
						$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$					
Identitas Jumlah dan Selisih Dua Sudut											
$\sin \alpha + \sin \beta = 2\sin\left(\frac{\alpha+\beta}{2}\right)\cos\left(\frac{\alpha-\beta}{2}\right)$						$\sin(\alpha + \beta) = \sin \alpha \cos \beta + \cos \alpha \sin \beta$ $\sin(\alpha - \beta) = \sin \alpha \cos \beta - \cos \alpha \sin \beta$					
$\sin \alpha - \sin \beta = 2\cos\left(\frac{\alpha+\beta}{2}\right)\sin\left(\frac{\alpha-\beta}{2}\right)$						$\cos(\alpha + \beta) = \cos \alpha \cos \beta - \sin \alpha \sin \beta$ $\cos(\alpha - \beta) = \cos \alpha \cos \beta + \sin \alpha \sin \beta$					
$\cos \alpha + \cos \beta = 2\cos\left(\frac{\alpha+\beta}{2}\right)\cos\left(\frac{\alpha-\beta}{2}\right)$						$\tan(\alpha + \beta) = \frac{\tan \alpha \tan \beta}{1 - \tan \alpha \tan \beta}$ $\tan(\alpha - \beta) = \frac{\tan \alpha \tan \beta}{1 + \tan \alpha \tan \beta}$					
$\cos \alpha - \cos \beta = -2\sin\left(\frac{\alpha+\beta}{2}\right)\sin\left(\frac{\alpha-\beta}{2}\right)$											

Identitas Perkalian Sinus dan Cosinus	Identitas Sudut 2 Rangkap/Ganda
$\sin \alpha \cdot \sin \beta = -\frac{1}{2}[\cos(\alpha + \beta) - \cos(\alpha - \beta)]$	$\sin 2\alpha = 2 \sin \alpha \cos \alpha$
$\sin \alpha \cdot \cos \beta = \frac{1}{2}[\sin(\alpha + \beta) + \sin(\alpha - \beta)]$	$\cos 2\alpha = \cos^2 \alpha - \sin^2 \alpha$
$\cos \alpha \cdot \cos \beta = \frac{1}{2}[\cos(\alpha + \beta) + \cos(\alpha - \beta)]$	
$\cos \alpha \cdot \sin \beta = \frac{1}{2}[\sin(\alpha + \beta) - \sin(\alpha - \beta)]$	

	$= 2 \cos^2 \alpha - 1$ $\tan \tan 2\alpha = \frac{2 \tan \alpha}{1 - \alpha}$
Identitas Setengah Sudut	Identitas Sudut 3 Rangkap/Ganda
$\sin \frac{1}{2} \alpha = \pm \sqrt{\frac{1 - \cos \alpha}{2}}$ $\sin \frac{1}{2} \alpha = \pm \sqrt{\frac{1 - \cos \alpha}{2}}$	$\tan \frac{1}{2} \alpha = \pm \sqrt{\frac{1 - \cos \alpha}{1 + \cos \alpha}}$ $= \frac{\sin \alpha}{1 + \cos \alpha}$ $= \frac{1 - \cos \alpha}{\sin \alpha}$
Identitas Sudut Kuadrat	Identitas Kofungsi
$\alpha = \frac{1 - \cos(2\alpha)}{2}$	$\sin \sin \alpha = \cos \cos (90^\circ - \alpha)$ $\cos \cos \alpha = \sin \sin (90^\circ - \alpha)$
$\alpha = \frac{1 + \cos(2\alpha)}{2}$	$\tan \tan \alpha = \cot \cot (90^\circ - \alpha)$ $\cot \cot \alpha = \tan \tan (90^\circ - \alpha)$
$\alpha = \frac{1 - \cos(2\alpha)}{1 + \cos(2\alpha)}$	$\sec \sec \alpha = \csc \csc (90^\circ - \alpha)$ $\csc \csc \alpha = \sec \sec (90^\circ - \alpha)$
Sudut Berelasi	