$1-(2\cos^2\theta-1)$

$(1+\tan^2\theta)\ (2-2\cos^2\theta)$ $\quad 2\tan^2\theta$

8E P.402 (CONT.)

6. a. $(1+\tan^2\theta)(1-\cos 2\theta) = 2\tan^2\theta$

$(1+\tan^2\theta)(1-(2\cos^2\theta-1))$

$(1+\tan^2\theta)(2-2\cos^2\theta)$ $\quad \frac{\sin^2\theta}{\cos^2\theta}$

$2-2\cos^2\theta+2\tan^2\theta-2\tan^2\theta\cos^2\theta$

$2+2\tan^2\theta-2\cos^2\theta-2\sin^2\theta$

$2+2\tan^2\theta-2(\cancel{\cos^2\theta+\sin^2\theta})$

$2+2\tan^2\theta-2(1)$

$2\tan^2\theta = 2\tan^2\theta$

b.) $(1+\tan^2\theta)(1+2\cos\theta) = 2$

$(1+\tan^2\theta)(\cancel{1}+(2\cos^2\theta-\cancel{1}))$

$(1+\tan^2\theta)(2\cos^2\theta) \Rightarrow \tan^2\theta\cos^2\theta = \frac{\sin^2\theta}{\cancel{\cos^2\theta}}\cdot\cancel{\cos^2\theta} \Rightarrow \sin^2\theta$

$2\cos^2\theta+2\sin^2\theta$

$2(\cos^2\theta+\sin^2\theta)$

$2=2$

7. a $\frac{1-\cos 2A}{1+\cos 2A} = \tan^2 A$

$\frac{1-(1-2\sin^2\theta)}{1+(2\cos^2\theta-1)}$

$\frac{\cancel{2}\sin^2\theta}{\cancel{2}\cos^2\theta}$

$\tan^2\theta = \tan^2\theta$

b. $\frac{1-\tan^2 A}{1+\tan^2 A} = \cos 2A$

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

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

$\cos 2A = \cos 2A$

c. $\frac{\sin 2A}{1-\cos 2A} = \cot A$

$\frac{2\sin A\cos A}{1-(1-2\sin^2 A)} =$

$\frac{2\sin A\cos A}{2\sin^2 A} =$

$\frac{\cos A}{\sin A} =$

$\cot A = \cot A$

d. ON BACK