ICE - Inverse Trig Antiderivatives

Calculate formulas for each of the integrals given in the table below.

Indefinite Integral	*Formula*
$\int \frac{2}{\sqrt{1-(2x)^2}} \cdot dx$	
$\int \frac{3}{\sqrt{1-9x^2}} \cdot dx$	
$\int \frac{3}{1+9x^2} \cdot dx$	
$\int \frac{1}{2 \cdot \sqrt{1-\left(\frac{x}{2}\right)^2}} \cdot dx$	
$\int \frac{1}{\sqrt{4-x^2}} \cdot dx$	
$\int \frac{1}{4+x^2} \cdot dx$	
$\int \frac{2x}{4+x^2} \cdot dx$	
$\int \frac{-\sin(x)}{1+\cos^2(x)} \cdot dx$	

Answers: (a) $\sin^{-1}(2x) + C$ (b) $\sin^{-1}(3x) + C$ (c) $\tan^{-1}(3x) + C$ (d) $\sin^{-1}(x/2) + C$
(e) $\sin^{-1}(x/2) + C$ (f) $0.5*\tan^{-1}(x/2) + C$ (g) $\ln(4 + x^2) + C$ (h) $\tan^{-1}(\cos(x)) + C$