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A. Verify $\cos(2x) = \cos^2 x - \sin^2 x$

Use the given information to find sin 2θ, cos 2θ, and tan 2θ.

21. $\cos\theta = \frac{4}{5}, 0° < \theta < 90°$ $\frac{24}{25}, \frac{7}{25}, \frac{24}{7}$ **22.** $\sin\theta = \frac{1}{3}, 0 < \theta < \frac{\pi}{2}$ $\frac{4\sqrt{2}}{9}, \frac{7}{9}, \frac{4\sqrt{2}}{7}$

Verify that each equation is an identity.

28. $\csc 2\theta = \frac{1}{2}\sec\theta \csc\theta$

29. $\cos A - \sin A = \frac{\cos 2A}{\cos A + \sin A}$

30. $(\sin\theta + \cos\theta)^2 - 1 = \sin 2\theta$