Name: Section: 7 8

Evaluate the following integral using a trigonometric substitution.

$$\int \sqrt{25 - x^2}\, dx$$

You will need the following three trig identities for this problem.

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