

NAME: _____

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Worksheet week 11 - MAC 2311, Spring '14

1. Find the general antiderivative:

(a) $\int (\sec^2 x + \frac{3}{\sqrt{1-x^2}} - 5) dx$

(b) $\int \frac{x^2 - 3}{2\sqrt{x}} dx$

2. A particle is moving with the given data. Find the position of the particle.

$$a(t) = 2 \cos t + \sin t, \quad v(0) = 1, \quad s(0) = 0.$$

3. A car braked with constant deceleration of 16ft/s^2 , producing skid marks measuring 200 ft before coming to a stop. How fast was the car traveling when the brakes were applied?