11D Spotting Derivatives

1. Find:

$$\int \left(\frac{2x}{x^2 + 1}\right) dx$$

2. Find:

$$\int \left(\frac{\cos x}{3 + 2\sin x}\right) dx$$

3. Find:

$$\int (3\sin(x)\cos(x))\ dx$$

4. Find:

$$\int (3\cos^2(x)\sin(x)) \, dx$$

5. Find:

$$\int x(x^2 + 5)^3 \, dx$$

6. Find:

$$\int 5 \tan(x) \sec^4(x)\ dx$$

7. Find $\int \frac{\sin 2x}{(3+\cos 2x)^3} \, dx$ (1f from textbook exercise)