## BÀI TẬP BUỔI 6

## Tìm các tích phân bất định sau

**100.** 
$$\int \frac{2x-3}{\sqrt{3x^2+x+1}} \, dx$$

**101.** 
$$\int \frac{3x-4}{\sqrt{1+3x-x^2}} dx$$

**102.** 
$$\int \sqrt{2x^2 + 4x + 1} dx$$

**103.** 
$$\int \sqrt{6+3x-2x^2} \, dx$$

$$104. \int \frac{dx}{4\sin x + 3\cos x + 5}$$

$$105. \int \frac{dx}{\cos^6 x}$$

## Tính các TPXĐ

**106.** 
$$\int_{0}^{2} |1-x| dx$$

107. 
$$\int_{0}^{\sqrt{3}} x \arctan x dx$$

**108.** 
$$\int_{0}^{a} x^{2} \sqrt{a^{2} - x^{2}} dx$$

**109.** 
$$\int_{-1}^{1} \frac{x dx}{x^2 + x + 1}$$

**110.** 
$$\int_{1}^{9} x \sqrt[3]{1-x} dx$$

111. 
$$\int_{0}^{2\pi} \frac{dx}{(2+\cos x)(3+\cos x)}$$

112. 
$$\int_{-1}^{1} \frac{dx}{(e^x + 1)(x^2 + 1)}$$

113. 
$$\int_{-\frac{\pi}{4}}^{\frac{\pi}{4}} \frac{x^7 - 3x^5 + 7x^3 - x + 1}{\cos^2 x} dx$$