

組 番 氏 名 _____

1. 導関数を求めよ．途中の計算式も書くこと．

(1) $y = (x^2 + 2x + 3)^4$

答 _____

(2) $y = \log(\sin x + \cos x)$

答 _____

(3) $y = \text{Sin}^{-1}(2x - 1)^3$

答 _____

(4) $y = e^{7x^3+x^2}$

答 _____

(5) $y = \log_{10}(5x + 2)$

答 _____

(6) $y = x^2e^x$

答 _____

2. 積分を求めよ．途中の計算式も書くこと．

(1) $\int (7x + 3)^9 dx$

答 _____

(2) $\int \sin(5x - 3) dx$

答 _____

(3) $\int \frac{dx}{x^2 + 2}$

答 _____

(4) $\int \frac{dx}{\sqrt{25 - x^2}}$

答 _____

(5) $\int x\sqrt{1-x} dx$

答 _____

(6) $\int \frac{e^x}{e^x - e^{-x}} dx$

答 _____