

2年 ____ 科 ____ 番 氏名 _____

★ 次の関数を微分せよ。

(1) $f(x) = \frac{3x - 2}{2x^2 + x - 1}$

(2) $f(x) = \frac{1}{4x^2 - 4x + 1}$

(3) $f(x) = \sqrt{x}$

(4) $f(x) = \frac{1}{\sqrt{x^7}}$

(5) $f(x) = \frac{1}{(6x^2 - x - 2)^2}$

(6) $f(x) = (2x^2 + x + 4)^2$

(7) $f(x) = \sin(3x^2 - 7x + 2)$

(8) $f(x) = \tan(2x^2 + 3x + 6)$

(9) $f(x) = \cos(3x - 2)$

(10) $f(x) = (x^2 - 3x + 2) \cos(x)$

(1) $f'(x) = \frac{-6x^2 + 8x - 1}{(x + 1)^2(2x - 1)^2}$

(3) $f'(x) = \frac{1}{2\sqrt{x}}$

(5) $f'(x) = \frac{-24x + 2}{(6x^2 - x - 2)^3}$

(7) $f'(x) = (6x - 7)\cos(3x^2 - 7x + 2)$

(9) $f'(x) = -3\sin(3x - 2)$

(2) $f'(x) = \frac{-8x + 4}{(2x - 1)^4}$

(4) $f'(x) = -\frac{7}{2x^{\frac{7}{9}}}$

(6) $f'(x) = (8x + 2)(2x^2 + x + 4)$

(8) $f'(x) = \frac{\cos(2x^2 + 3x + 6)}{4x + 3}$

(10) $f'(x) = (2x - 3)\cos(x) - (x^2 - 3x + 2)\sin(x)$