

2年 ____ 科 ____ 番 氏名 _____

★ 次の関数を微分せよ。

(1) $f(x) = -10x + 5$

(2) $f(x) = 4x^2 + 7x - 16$

(3) $f(x) = 4x^5 - 6x$

(4) $f(x) = 6x^5 + 5x^4 - 12x^3$

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

(6) $f(x) = (2x - 3)(x^2 - 2x + 1)$

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

(8) $f(x) = \frac{3x^2 + 7x + 2}{2x^2 + 3x + 2}$

(9) $f(x) = \frac{6x^2 - x - 2}{2x^2 - 4x + 3}$

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

$$(1) \quad f'(x) = -10$$

$$(3) \quad f'(x) = 20x^4 - 6$$

$$(5) \quad f'(x) = -\frac{5x^7}{6}$$

$$(7) \quad f'(x) = 4x^3 - 9x^2 + 4x - 3$$

$$(9) \quad f'(x) = \frac{-22x^2 + 44x - 11}{(2x^2 - 4x + 3)^2}$$

$$(2) \quad f'(x) = 8x + 7$$

$$(4) \quad f'(x) = 30x^4 + 20x^3 - 36x^2$$

$$(6) \quad f'(x) = 6x^2 - 14x + 8$$

$$(8) \quad f'(x) = \frac{-5x^2 + 4x + 8}{(2x^2 + 3x + 2)^2}$$

$$(10) \quad f'(x) = \frac{-4x + 1}{(2x^2 - x + 4)^2}$$