

Find dy/dx .

1) $y = 5x^4 - 6x^3 + 2$

A) $20x^3 - 18x^2$

B) $4x^3 + 3x^2 - 7$

C) $20x^3 - 18x^2 - 7$

D) $4x^3 + 3x^2$

Find the horizontal tangents of the curve.

2) $y = x^2 - 8x + 19$

Find dy/dx .

3) $y = (8x - 3)(8 - 6x^3)$

4) $y = \frac{x^2}{9 - 9x}$

Find the equation of the line tangent to the curve at the given value of x .

5) $y = 2x^2 + 2x$ at $x = 7$

Find dy/dx .

6) $y = 17x^{-2} + 7x^3 + 12x$

A) $-34x^{-3} + 21x^2$

B) $-34x^{-1} + 21x^2 + 12$

C) $-34x^{-1} + 21x^2$

D) $-34x^{-3} + 21x^2 + 12$

7) $y = x^3 \sec x$

8) $y = \frac{\cos x}{8x}$

9) $y = x^5 - \csc x + 9$

A) $5x^4 + \cot^2 x$

B) $5x^4 + \csc x \cot x$

C) $5x^4 - \csc x \cot x$

D) $x^4 - \cot^2 x + 9$

10) $y = 15x \sin x - 15 \tan x$