

6. Find $f'(x)$ if $f(x) = \frac{2x+5}{3x-1}$.

A) $\frac{17}{(3x-1)^2}$

C) $\frac{17}{(2x+5)^2}$

E) $\frac{2}{3}$

B) $-\frac{17}{(3x-1)^2}$

D) $\frac{12x+13}{(3x-1)^2}$

7. Find $f'(x)$ if $f(x) = \frac{1+x^2}{1-x^2}$.

A) $\frac{-4x}{(1-x^2)^2}$

C) $\frac{4x}{(1-x^2)^2}$

E) $\frac{4x}{1-x^2}$

B) $\frac{-4x^3}{(1-x^2)^2}$

D) $\frac{2x}{1-x^2}$

8. Find y' if $y = \frac{2x^2 + 7x - 15}{x + 5}$.

A) $\frac{x-3}{(x+5)^2}$

C) -2

E) $\frac{3-x}{(x+5)^2}$

B) $\frac{4x+7}{(x+5)^2}$

D) 2

9. Find the equation of the line tangent to the graph of $y = 2x^3 - 5x^2 + 3$ at the point $(1, 0)$.

A) $y = \frac{1}{4}x - 4$

C) $y = 4x - \frac{1}{4}$

E) $y = -4x + 4$

B) $y = 4x - 4$

D) $y = -4x - 4$

10. What is the velocity at 3 seconds if the position of an object is given by $s(t) = 100 + 2t - t^2$?

A) -2 u/s

C) -6 u/s

E) 97 u/s

B) -4 u/s

D) cannot be determined