



1) Encontre y' , sabendo que:

1) $y = x - 3$

2) $y = e^x + 5$

3) $y = 4 - \ln x$

4) $y = 2x + e$

5) $y = 7 - 6x$

6) $y = 3e^x + 8 \ln x - 1$

7) $y = \frac{12x-9}{3}$

8) $y = \frac{12x-9}{5}$

9) $y = \frac{x}{3} + \frac{\ln x}{2} + \sqrt{5}$

10) $y = \ln 4 - 3e + 2\pi - 1$

11) $y = 3 \sin x$

12) $y = \frac{2 \cos x - 3}{5}$

Resposta

1) $y' = 1$

2) $y' = e^x$

3) $y' = -\frac{1}{x}$

4) $y' = 2$

5) $y' = -6$

6) $y' = 3e^x + \frac{8}{x}$

7) $y' = 4$

8) $y' = \frac{12}{5}$

9) $y' = \frac{1}{3} + \frac{1}{2x}$

10) $y' = 0$

11) $y' = 3 \cos x$

12) $y' = -\frac{2 \sin x}{5}$

2) Encontre y' , sabendo que:

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

2) $y = \frac{x^2}{2} - \sqrt{3}x + e$

3) $y = x^3 - 2e^x - \pi x + e^2$

4) $y = \frac{2x^2 - 3x}{x}$

5) $y = \frac{2x^2 - 3x}{x^2}$

6) $y = \frac{3}{2x^2} - \frac{1}{x}$

7) $y = 2\sqrt{x} + 3\sqrt[3]{x}$

8) $y = \frac{3}{\sqrt[3]{x}} + \frac{2}{3x}$

9) $y = x\sqrt{x} - \frac{x}{\sqrt[3]{x}}$

10) $y = (x^2 - 1)(2 + x)$

Resposta

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

2) $y' = x - \sqrt{3}$

3) $y' = 3x^2 - 2e^x - \pi$

4) $y' = 2$

5) $y' = \frac{3}{x^2}$

6) $y' = -\frac{3}{x^3} + \frac{1}{x^2}$

7) $y' = \frac{1}{\sqrt{x}} + \frac{1}{\sqrt[3]{x^2}}$

8) $y' = -\frac{1}{\sqrt[3]{x^4}} - \frac{2}{3x^2}$

9) $y' = \frac{3\sqrt{x}}{2} - \frac{2}{3\sqrt[3]{x}}$

10) $y' = 3x^2 + 4x - 1$

3) Encontre y' , sabendo que:

1) $y = x \ln x$

2) $y' = 3x^2 e^x$

3) $y = \frac{2-3x}{1-x}$

4) $y = \frac{x^2+2}{1+2x}$

5) $y = e^x \ln x$

6) $y = \frac{e^x}{2x}$

7) $y = 5x^3 \ln x$

8) $y = \frac{3(x^2-1)}{x}$

9) $y = \frac{2}{3-2x}$

10) $y = \frac{x^2-1}{x+1}$

Resposta

1) $y' = 1 + \ln x$

2) $y' = 3xe^x(2+x)$

3) $y' = \frac{1}{(1-x)^2}$

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

5) $y' = e^x(\frac{1}{x} + \ln x)$

6) $y' = \frac{e^x(x-1)}{2x^2}$

7) $y' = 5x^2(1+3 \ln x)$

8) $y' = \frac{3x^2+3}{x^2}$

9) $y' = \frac{4}{(3-2x)^2}$

10) $y' = 1$