

CHOOSE THE BEST ANSWER:

1) A function is given. Choose the alternative that is the derivative, $\frac{dy}{dx}$ of the function.

- a) $5x^4 \tan x$
- b) $x^5 \sec^2 x$
- c) $5x^4 \sec^2 x$
- d) $5x^4 + \sec^2 x$
- e) $5x^4 \tan + x^5 \sec^2 x$
- f) None of the above

2) A function is given. Choose the alternative that is the derivative, $\frac{dy}{dx}$ of the function.

- $$y = \frac{2-x}{3x+1}$$
- a) $-\frac{7}{3x+1}$
 - b) $\frac{6x-5}{(3x+1)^2}$
 - c) $-\frac{9}{(3x+1)^2}$
 - d) $\frac{7}{(3x+1)^2}$
 - e) $\frac{7}{(3x+1)^2}$
 - f) None of the above

3) A function is given. Choose the alternative that is the derivative, $\frac{dy}{dx}$ of the function.

- $$y = \sqrt{3-2x}$$
- a) $\frac{1}{2\sqrt{3-2x}}$
 - b) $-\frac{1}{\sqrt{3-2x}}$
 - c) $-\frac{(3-2x)^{\frac{3}{2}}}{3}$
 - d) $-\frac{1}{3-2x}$
 - e) $\frac{3}{2}(3-2x)^{\frac{3}{2}}$
 - f) None of the above

4) A function is given. Choose the alternative that is the derivative, $\frac{dy}{dx}$ of the function

- $$y = \frac{2}{(5x+1)^3}$$
- a) $-\frac{30}{(5x+1)^2}$
 - b) $-30(5x+1)^{-4}$
 - c) $\frac{-6}{(5x+1)^4}$
 - d) $-\frac{10}{3}(5x+1)^{-\frac{4}{3}}$
 - e) $\frac{30}{(5x+1)^4}$
 - f) None of the above