

Answers for Quiz #2

1. a. $x = \frac{\pi}{3}$
b. $x = -1, x = 3$
c. $x = -1$
d. $x = 1$
2. a. $f'(x) = \frac{-4}{(x-3)^{3/2}}$
b. $f'(x) = \frac{-6}{x^3}$
c. $f'(x) = 12 \cos 4x$
d. $f'(x) = -2 \sin 2x$
3. a. $\frac{dy}{dx} = \frac{-3}{5x^2}$
b. $\frac{dy}{dx} = 4 \sec x \left(\frac{1}{2\sqrt{x}} + \sqrt{x} \tan x \right)$
c. $\frac{dy}{dx} = \frac{2x^2 - 14x - 4}{(2x - 7)^2}$
d. $\frac{dy}{dx} = \frac{-\sqrt{5}}{2x^{3/2}}$
e. $\frac{dy}{dx} = 3x^2 \tan x + x^3 \sec^2 x$
f. $\frac{dy}{dx} = -(3x^2 - 3x + 1) \sin x + (6x - 3) \cos x$

If you feel that there are errors with this answer page, please email Brian Beck-Smith at bbeck@utdallas.edu.