Fill in the Blanks — Newton-Raphson Method

Give all values to 4 decimal places.

$f(x)$	x_0	$f'(x)$	$f(x_0)$	$f'(x_0)$	x_1	$f(x_1)$	$f'(x_1)$	x_2
$x^3 - x^2 - 2$	2	$3x^2 - 2x$	2	8	1.75	0.2969	5.6875	1.6978
$x^2 + \frac{3}{x}$	-2	$2x - \frac{3}{x^2}$	2.5	-4.75	-1.4737	0.1360	-4.3287	-1.4423
$x - \frac{3}{\sqrt{x}}$	1	$1 + \frac{3}{2x^{3/2}}$	-2	2.5	1.8	-0.4361	1.6211	2.0690
$3x^2 + \ln x$	1.5	$6x + \frac{1}{x}$	7.1555	9.6667	0.7598	1.4571	5.8749	0.5118
$x + 5 + \sin x$	-6	$1 + \cos x$	-0.7206	1.9602	-5.6324	-0.0266	1.7956	-5.6176
$x^2 \sin x - 1$	1.2	$2x \sin x + x^2 \cos x$	0.3421	2.7587	1.0760	0.0189	2.4437	1.0683
$\frac{5\cos x}{x}$	7.7	$\frac{-5x \sin x - 5 \cos x}{x^2}$	0.0996	-0.6546	7.8522	0.0011	-0.6369	7.8539
$2 + \sec^3 x$	2.4	$3\sec^3 x \tan x$	-0.4940	6.8537	2.4721	-0.0741	4.9249	2.4871