

Prof. Dr. Ingrid Isenhardt
 Computational Engineering
 of Knowledge

1) $f(x) = x^2$
 $x = 1$

n	Δ	x_n	$f(x_n)$
0	0	1.000000	1
1	0.01	1.010001	1.020101
2	0.01	1.020004	1.040404
3	0.01	1.030009	1.060909
4	0.01	1.040016	1.081616
5	0.01	1.050025	1.102525
6	0.01	1.060036	1.123636
7	0.01	1.070049	1.144949
8	0.01	1.080064	1.166464
9	0.01	1.090081	1.188181
10	0.01	1.100100	1.210100

n	Δ	x_n	$f(x_n)$
0	0	1.0000	1
1	0.01	1.010001	1.0201
2	0.01	1.020004	1.0404
3	0.01	1.030009	1.0609
4	0.01	1.040016	1.0816
5	0.01	1.050025	1.1025
6	0.01	1.060036	1.1236
7	0.01	1.070049	1.1449
8	0.01	1.080064	1.1664
9	0.01	1.090081	1.1881
10	0.01	1.100100	1.2101

1) $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = 1$

2) $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = 1$

3) $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = 1$

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7) $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = 1$

8) $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = 1$

9) $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = 1$

10) $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = 1$