

MathDIY

ID	notation	subtitle	description	citation	fundamentals.*	attachments.*	templates.*
D001	$D_{(E)}$	Depreciation on fixed and current assets in Enterprises indexed with (E)	The depreciation represents the value consumption of goods and impairments of current assets in the Enterprise (E). There are various depreciation methods which are based on legal basis (accounting depreciation, yearly) and on empirical values (calculated depreciation, monthly). Depreciation is spread over the duration of use and represents a regular expense that reflects the continuous loss of value, while impairments represent one-time or unexpected expense that reflect an unscheduled loss of value that was caused by an event (damage, theft, bad debts, outstanding bills, dubious increases on the stock exchange) that lead to a new and continuous status (through legal valuation and factoring).	Heading: MathDIY fundamentals, subtitle: Depreciation on fixed and current assets. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV. Source: MathDIY, Democracy and Internet are Yours. Link: https://github.com/scifiltr/MathDIY (latest update: 01-05-2020, 5:30 pm UTC)	*.depreciation	NA	NA
D002	$d[n] \vee d[t]$	Duration of use	Divisor to determine depreciation according to the acquisition and manufacturing costs. The result is always a yearly depreciation amount. The number of mathematical terms in a finite series is determined by the duration of use in n-times.	Heading: MathDIY fundamentals, subtitle: Duration of use. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV. Source: MathDIY, Democracy and Internet are Yours. Link: https://github.com/scifiltr/MathDIY (latest update: 01-05-2020, 6:25 pm UTC)	*.depreciation	NA	NA
D003	$d[r] \vee d[i]$	Rate of Depreciation	Constant percentage to determine degressive depreciation based on residual value. The result is always a different depreciation amount. By the end of the duration of use, the acquisition and manufacturing costs will only be amortized to a residual value.	Heading: MathDIY fundamentals, subtitle: Rate of Depreciation. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV. Source: MathDIY, Democracy and Internet are Yours. Link: https://github.com/scifiltr/MathDIY (latest update: 01-05-2020, 6:27 pm UTC)	*.depreciation	NA	NA
D004	$D_{(E)} \$\$:= D_i \text{€}, \$ $	Depreciation, legally required indexed with for i to n	Depreciation according to the principles of proper accounting, e.g. lowest value principle, double-entry accounting	Heading: MathDIY fundamentals, subtitle: Legally required depreciation. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV. Source: MathDIY, Democracy and Internet are Yours. Link: https://github.com/scifiltr/MathDIY (latest update: 01-12-2020, 6:44 pm UTC)	*.depreciation	NA	NA
D005	$D_{(E)} p := D_i \Delta p $	Depreciation, implicit indexed with for i to n	Depreciation according to the internal transfer pricing system (ITPS), e.g. internal cost allocation, analysis and control	Heading: MathDIY fundamentals, subtitle: Implicit depreciation. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV. Source: MathDIY, Democracy and Internet are Yours. Link: https://github.com/scifiltr/MathDIY (latest update: 01-12-2020, 6:44 pm UTC)	*.depreciation	NA	NA

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D006	$D_i := ac : d[n]$ $r_n(ac) = 0 := ac - (D_0 - \dots - D_n)$	Depreciation, linear	With linear depreciation, the absolute depreciation amounts are spread equally over the legal duration of use known as $d[n]$. The linear depreciation is the easiest method to calculate. It is assumed that the amount of acquisition or factory costs (asset cost) is used equally stressed (distributed) over the required period (n).	<p>Heading: MathDIY fundamentals, subtitle: [subtitle]. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV.</p> <p>Note: The collection of formulas and explanations expressed about [subtitle] do not reflect the current and correct doctrine or agree with the binding standards of sub-disciplines (e.g. business accounting, commercial arithmetics, mathematical notation) or legal norms (e.g. IFRS) and so on.</p> <p>More information can be obtained via MathDIY, Democracy and Internet are Yours on Github: https://github.com/scifiltr/MathDIY (latest update: 01-15-2020, 7:26 pm UTC)</p>	*.depreciation	NA	NA
D007	$r_i := (D_i \times 100) : d[r]$ $D_i = r_i \times d[r] : 100$ $D_0 = ac \times d[r] : 100$ $r_0 = ac - D_0$ $r_1 = r_0 - D_1$ $r_n > 0 := ac - [D_0 + \dots + D_n]$	Depreciation, geometrically-degressive	With geometrically-degressive depreciation, the depreciation amounts are calculated from the residual book value of the respective year. This creates an annual depreciation amount. A fixed depreciation rate known as $d[r]$ is used for the calculation.	<p>Heading: MathDIY fundamentals, subtitle: [subtitle]. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV.</p> <p>Note: The collection of formulas and explanations expressed about [subtitle] do not reflect the current and correct doctrine or agree with the binding standards of sub-disciplines (e.g. business accounting, commercial arithmetics, mathematical notation) or legal norms (e.g. IFRS) and so on.</p> <p>More information can be obtained via MathDIY, Democracy and Internet are Yours on Github: https://github.com/scifiltr/MathDIY (latest update: 01-15-2020, 7:26 pm UTC)</p>	*.depreciation	NA	NA
D008	$a_i D_{[i]} = a_1 - (i - 1)d$ $d = a_{i+1} - a_i \wedge i:=n \vee n:=d[n]$ $s_n \sum D = a_1 + a_2 + \dots + a_n$ $s_n \sum D = na_1 + [n(n-1):2]d = n[(a_1 + a_n):2]$ $r_n := ac - (D_1 + D_2 + \dots + D_n)$	Depreciation, arithmetically-degressive	With arithmetically-degressive depreciation, the depreciation amount per year of use falls by the same amount (difference). An arithmetic series must be formed to perform the calculation. From this series, the amount of $D_{[i]}$ by which the depreciation amount ($d = a_{i+1} - a_i$) falls annually can be determined.	<p>Heading: MathDIY fundamentals, subtitle: [subtitle]. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV.</p> <p>Note: The collection of formulas and explanations expressed about [subtitle] do not reflect the current and correct doctrine or agree with the binding standards of sub-disciplines (e.g. business accounting, commercial arithmetics, mathematical notation) or legal norms (e.g. IFRS) and so on.</p> <p>More information can be obtained via MathDIY, Democracy and Internet are Yours on Github: https://github.com/scifiltr/MathDIY (latest update: 01-15-2020, 7:26 pm UTC)</p>	*.depreciation	NA	NA

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D009	$D_{(d)} \mid \text{bps, flops, Hz}$	Depreciation, digital indexed with demands in parenthesis	With digital depreciation by demands, the sums are divided according to their demands (outputs) – e.g. flops (Floating Point Operations Per Second), Hertz (Number of repetitive processes per second in a periodic signal) – similar to a loan (credits) in which the interest rate (i) is only due on the remaining amount (debits).	<p>Heading: MathDIY fundamentals, subtitle: [subtitle]. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV.</p> <p>Note: The collection of formulas and explanations expressed about [subtitle] do not reflect the current and correct doctrine or agree with the binding standards of sub-disciplines (e.g. business accounting, commercial arithmetics, mathematical notation) or legal norms (e.g. IFRS) and so on.</p> <p>More information can be obtained via MathDIY, Democracy and Internet are Yours on Github: https://github.com/scifiltr/MathDIY (latest update: 01-15-2020, 7:26 pm UTC)</p>	*.depreciation	NA	NA
D010	$D_{(o)} \mid \text{bps, flops, Hz}$	Depreciation, digital indexed with offers in parenthesis	With digital depreciation by offers, the sums are divided according to their offers (inputs) – e.g. flops (Floating Point Operations Per Second), Hertz (Number of repetitive processes per second in a periodic signal) – similar to a loan (credits) in which the interest rate (i) is only due on the remaining amount (debits).	<p>Heading: MathDIY fundamentals, subtitle: [subtitle]. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV.</p> <p>Note: The collection of formulas and explanations expressed about [subtitle] do not reflect the current and correct doctrine or agree with the binding standards of sub-disciplines (e.g. business accounting, commercial arithmetics, mathematical notation) or legal norms (e.g. IFRS) and so on.</p> <p>More information can be obtained via MathDIY, Democracy and Internet are Yours on Github: https://github.com/scifiltr/MathDIY (latest update: 01-15-2020, 7:26 pm UTC)</p>	*.depreciation	NA	NA
D011	$r_i := (D_i \times 100) : d[r]$ $D_i = r_i \times d[r] : 100$ $D_0 = ac \times d[r] : 100$ $D_1 = D_0 \times (1 + d[r] : 100)$ $D_n = D_1 \times (1 + d[r] : 100)$ $\sum D_{(i)} = D_0 + (D_1 + \dots + D_n)$ $r_0 = ac - D_0$ $r_1 = r_0 - D_1$ $r_n > 0 := ac - D_0 - (D_1 + \dots + D_n)$	Depreciation, geometrically-progressive	With geometrically-progressive depreciation, the depreciation amounts increase in each year of use. This method is hardly used. The calculation is based on a constant depreciation rate known as $d[r]$.	<p>Heading: MathDIY fundamentals, subtitle: [subtitle]. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV.</p> <p>Note: The collection of formulas and explanations expressed about [subtitle] do not reflect the current and correct doctrine or agree with the binding standards of sub-disciplines (e.g. business accounting, commercial arithmetics, mathematical notation) or legal norms (e.g. IFRS) and so on.</p> <p>More information can be obtained via MathDIY, Democracy and Internet are Yours on Github: https://github.com/scifiltr/MathDIY (latest update: 01-15-2020, 7:26 pm UTC)</p>	*.depreciation	NA	NA

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D012	$a_i \mid D_{(E)} = a_1 + (i - 1)d$ $d = -a_{i+1} - a_i \wedge i := n \vee n := d[n]$ $s_n \mid \sum D = a_1 + a_2 + \dots + a_n$ $s_n \mid \sum D = na_1 + [n(n-1):2]d = n[(a_1 + a_n):2]$ $r_n := ac - (D_1 + D_2 + \dots + D_n)$	Depreciation, arithmetically-progressive	With arithmetically-progressive depreciation, the depreciation amounts increase in each year of use. A linear increase as with arithmetically depressive depreciation is assumed.	<p>Heading: MathDIY fundamentals, subtitle: [subtitle]. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV.</p> <p>Note: The collection of formulas and explanations expressed about [subtitle] do not reflect the current and correct doctrine or agree with the binding standards of sub-disciplines (e.g. business accounting, commercial arithmetics, mathematical notation) or legal norms (e.g. IFRS) and so on.</p> <p>More information can be obtained via MathDIY, Democracy and Internet are Yours on Github: https://github.com/scifiltr/MathDIY (latest update: 01-15-2020, 7:26 pm UTC)</p>	*.depreciation	NA	NA
D013	$D_{(E)} \mid \text{miles, kWh, rps, revs} \mid$	Depreciation, performance-based	The performance-based depreciation best shows the actual wear of the asset. The calculation is based on the share (conversion) of the total runtime (miles, kWh) or rotational frequency (rps, revs) of the accounting period to the total performance (limitation) of the system or full capacity of the machines.	<p>Heading: MathDIY fundamentals, subtitle: [subtitle]. Repository: MathDIY on GitHub. Folder: fundamentals. Language: EN. Format: PDF CSV TSV.</p> <p>Note: The collection of formulas and explanations expressed about [subtitle] do not reflect the current and correct doctrine or agree with the binding standards of sub-disciplines (e.g. business accounting, commercial arithmetics, mathematical notation) or legal norms (e.g. IFRS) and so on.</p> <p>More information can be obtained via MathDIY, Democracy and Internet are Yours on Github: https://github.com/scifiltr/MathDIY (latest update: 01-15-2020, 7:26 pm UTC)</p>	*.depreciation	NA	NA