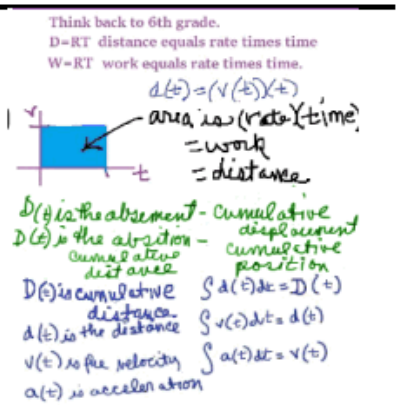
absement

/æbsɪmɛnt/

Cumulative Function

Cumulative Function	F(x)
function	f(x) = F'(x)
rate of change of the function	f'(x) = F''(x)
rate of change of the rate of change	f''(x) = F'''(x)



absement - absence from initial placement
absition - absence from initial position

absition

/æbsɪšən/

COMMENT: Yes, it is a "new" word. No! it is not a new idea.

IN MATH: 1. n. total distance from start, cumulative or total displacement (**abse**nce from initial place**ment**), distance (**ab**sition from **ab**sence from initial po**sition**), 2. n. the anitderivative of displacement or distance, the absition. SEE THE TABLE BELOW.
3. n. the (-1)th derivative of many derivatives/antiderivatives of distance or displacement.
4. n. the inverse function for the derivative, the 1st derivative, of a function modeling distance or displacement.

IN ENGLISH: there is no definition or "nonmath" use.

APPLICATION: Calculus.

QUESTIONS Swipe, with the mouse, between the stars to see the answer.

1. If this discussion were about probability rather than displacement or distance what is the name of the function that serves the same purpose as the absement?
* *
2. If this discussion were about velocity rather than displacement or distance what is the name of the function that serves the same purpose as the absement?
* *

STUFF YOU MAY WISH: See Dynamic Geometry absement SketchPad, pdf of this page.

Disclaimer

This is the "Azzolino Version" of the rational for the name absement.

What follows is my research with/on the word absement.

Perhps you will be willing to do research on your own. One might start with reading the essay version of angle measure linked here to provide an example of how an idea, is eventually coded by a word, then measured and refined, and adapted as a new use is found.

My dictionary, my "truth."

It is left for you to determine your "truth."

-- Agnes (A²) Azzolino

Mathematics, Kenimatics

Mathematics is the science of numbers and their operations.[1]
In traditional mathematics, in calculus, one considers
a **number** - x -- whose value usually varies (a **variable**)
a **function** - f(x) or y -- a really dependable rule that governs that number in the given situation
the **derivative** of that function - f'(x) or dy/dx - the function's rate of change
the **second derivative** of that function f''(x) or dy^2/dx^2
-- the rate of change of the function's rate of change
the **antiderivative** of that function - $\int f(x)dx$ and often designated a F(X)
-- the total result of the function from "start" to the given value of x.
Derivatives and antiderivatives/integrals are inverse functions and there are many of them.
See stuff above for more on this.

Mechanics is applied mathematics and deals with motion and forces producing motion. [2]
In traditional mechanics, in kinematics (the "geometry of motion", of points, bodies/objects) [3], one considers
a **time** - t -- whose value usually changes positively (think goes to a longer period of time)
a **position or distance or displacement** - s(t)or d(t) from a "start"
where the starting displacement is usually written as s(0) or s_0
for example this use of a quadratic for model motion
the **velocity** - v(t) or s'(t) -- the derivative of displacement - the rate of change of the displacement, the "speed"
the **acceleration** - a(t) or v'(t) or s''(t) -- second derivative of that function
-- the rate of change of the rate of change of displacement
the **total displacement** antiderivative of that function - $\int f(x)dx$ and often designated a F(X) -- the total result of the function from "start" to the given value of x
This **antiderivative** is now named the **absement**.

Negative Kinematics, Integral Kinematics [4], is all the integration functions of distance which have always existed but are now named and needed and used]5]. Where only the traditional derivatives were named involving displacement (velocity, acceleration), now the antiderivatives are now also named (absement, absity, ...), paralleling the reflection of unit name used in the metric system. SEE THE TABLE BELOW.

[1] https://www.merriam-webster.com/dictionary/mathematics
[2] https://www.merriam-webster.com/dictionary/mechanics
[3] https://en.wikipedia.org/wiki/Kinematics
[4] http://wearcam.org/mannfit/IEEE_GEM2014_MannEtal_pages270-272.pdf
[5] http://wearcam.org/mannfit/

The n-th derivatives of displacement (displacement and its derivatives and

In studying the fragment of history that led to the names for the nth derivatives, start with Roman numerals and Latin letters.

Latin letter	number
I	1
V	5

Metric Prefix [11]	Symbol	Multiply by
quetta	Q	10^{30}
ronna	R	10^{27}

antiderivatives/integrals)
where the distance unit is the meter [6]

Name	nth derivative	Unit
abset	-12	ms^{12}
absut	-11	ms^{11}
abshot	-10	ms^{10}
absrop	-9	ms^{9}
absock	-8	ms^{8}
absop	-7	ms^{7}
absackle	-6	ms^{6}
absnap	-5	ms^{5}
abserk	-4	ms^{4}
abseleration	-3	ms^{3}
absity	-2	ms^{2}
absement	**-1**	**ms**
displacement	**0**	**m**
velocity	1	m/s
acceleration	2	m/s^{2}
jerk; jolt	3	m/s^{3}
snap; jounce	4	m/s^{4}
crackle; flounce	5	m/s^{5}
pop; pounce	6	m/s^{6}
lock	7	m/s^{7}
drop	8	m/s^{8}
shot	9	m/s^{9}
put	10	m/s^{10}
get	11	m/s^{11}

X	10
C	100
D	500
M	1000

In the mid1800s, chemists used small units (centimeters, grams, seconds) and engineers used large units (meter, kilogram, and second). When the Metric System was extend, it had toinclude all of these and more.[7]

Use the prefix ab meaning “away.” "Other words with this prefix are: absent, abduct, and absolute. For example: Absent describes someone who is absent is “away” from a place.[8]

As more units were needed, the naming became a bit quirky as with the naming of subatomic elementary particles of the Standard Model. The six "flavors" of quarks: up, down, strange, charm, bottom, and top. [9]

Even Kellog's Rice Krispies Cereal [10] sounds, snap, crackle, and pop are found in the names of the nth-derivatives.

The metric practice of using powers of ten and symmetry of names, large reflecting small for a specific power of 10, is used in naming the antiderivatives, the negative power nth derivatives.

yotta	Y	10^{24}
zetta	Z	10^{21}
exa	E	10^{18}
peta	P	10^{15}
tera	T	10^{12}
giga	G	10^{9}
mega	M	10^{6}
hectokilo	hk	10^{5}
myria	ma	10^{4}
kilo	k	10^{3}
hecto	h	10^{2}
deka	da	10^{1}
UNIT	1	10^{0}
deci	d	10^{-1}
centi	c	10^{-2}
milli	m	10^{-3}
decimilli	dm	10^{-4}
centimilli	cm	10^{-5}
micro	µ	10^{-6}
nano	n	10^{-9}
pico	p	10^{-12}
femto	f	10^{-15}
atto	a	10^{-18}
zepto	z	10^{-21}
yocto	y	10^{-24}
ronto	r	10^{-27}
quecto	q	10^{-30}

[6] https://en.wikipedia.org/wiki/Absement
[7] https://www.ibiblio.org/units/cgsmks.html
[8] https://membean.com/roots/ab-away
[9] https://en.wikipedia.org/wiki/Subatomic_particle#Hadrons
[10] https://www.ricekrispies.com/en_US/products/cereal.html
[11] Metric Prefixes & Conversion