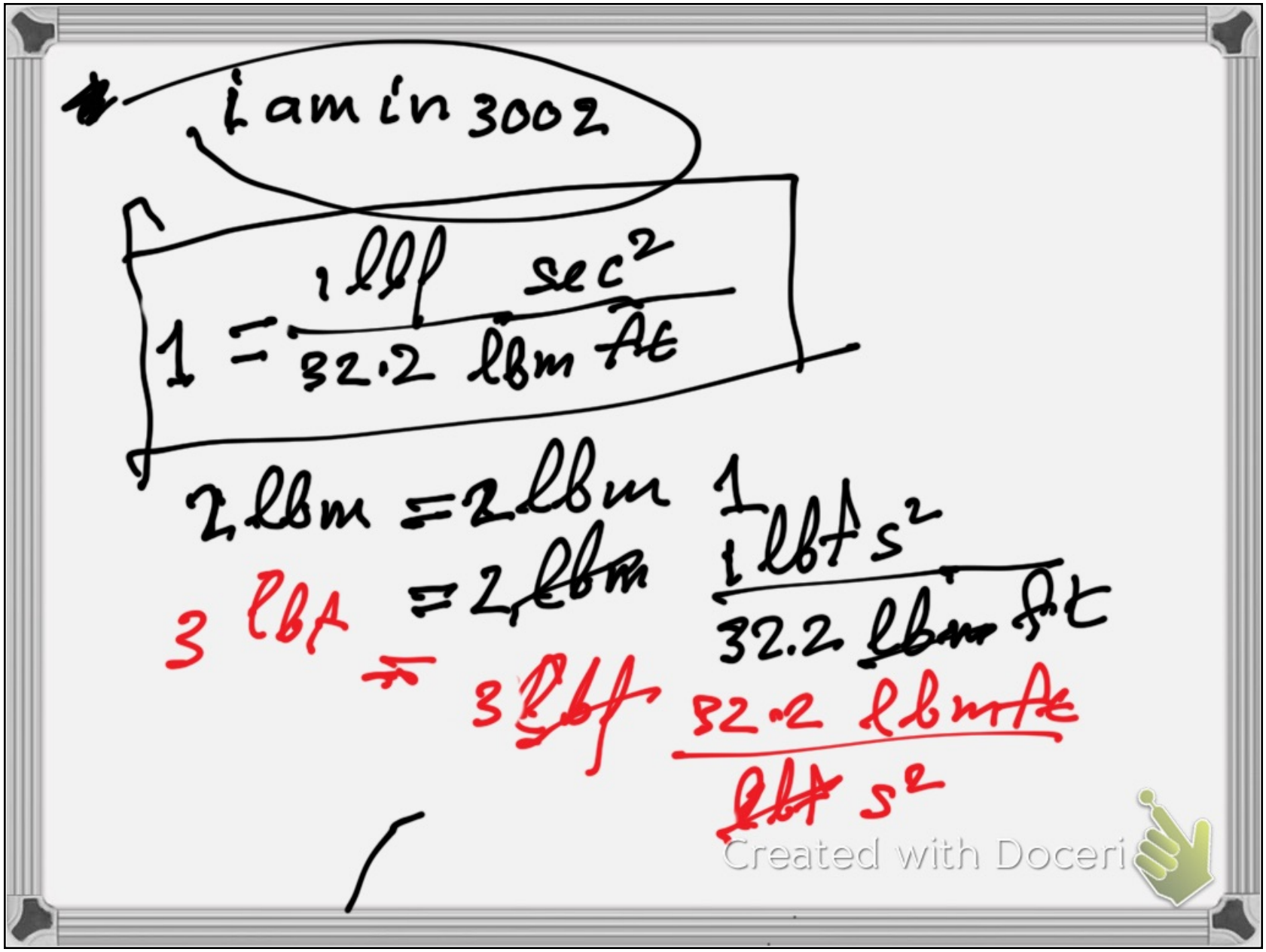
i am in 3002
1 = 1 lbf sec² / 32.2 lbm ft
2 lbm = 2 lbm 1 / 1 lbf s² / 32.2 lbm ft
3 lbf = 3 lbf 32.2 lbm ft / lbf s²
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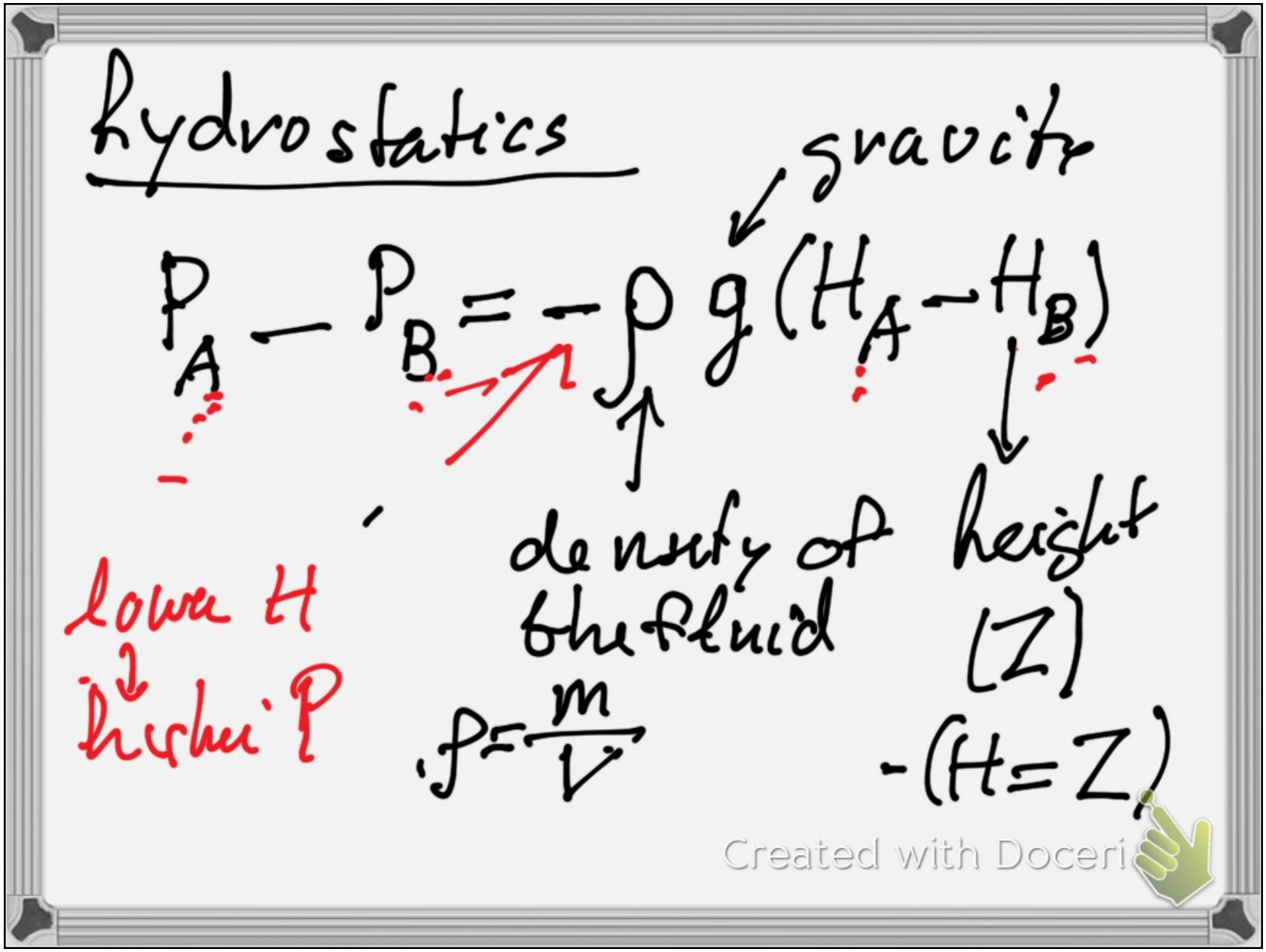
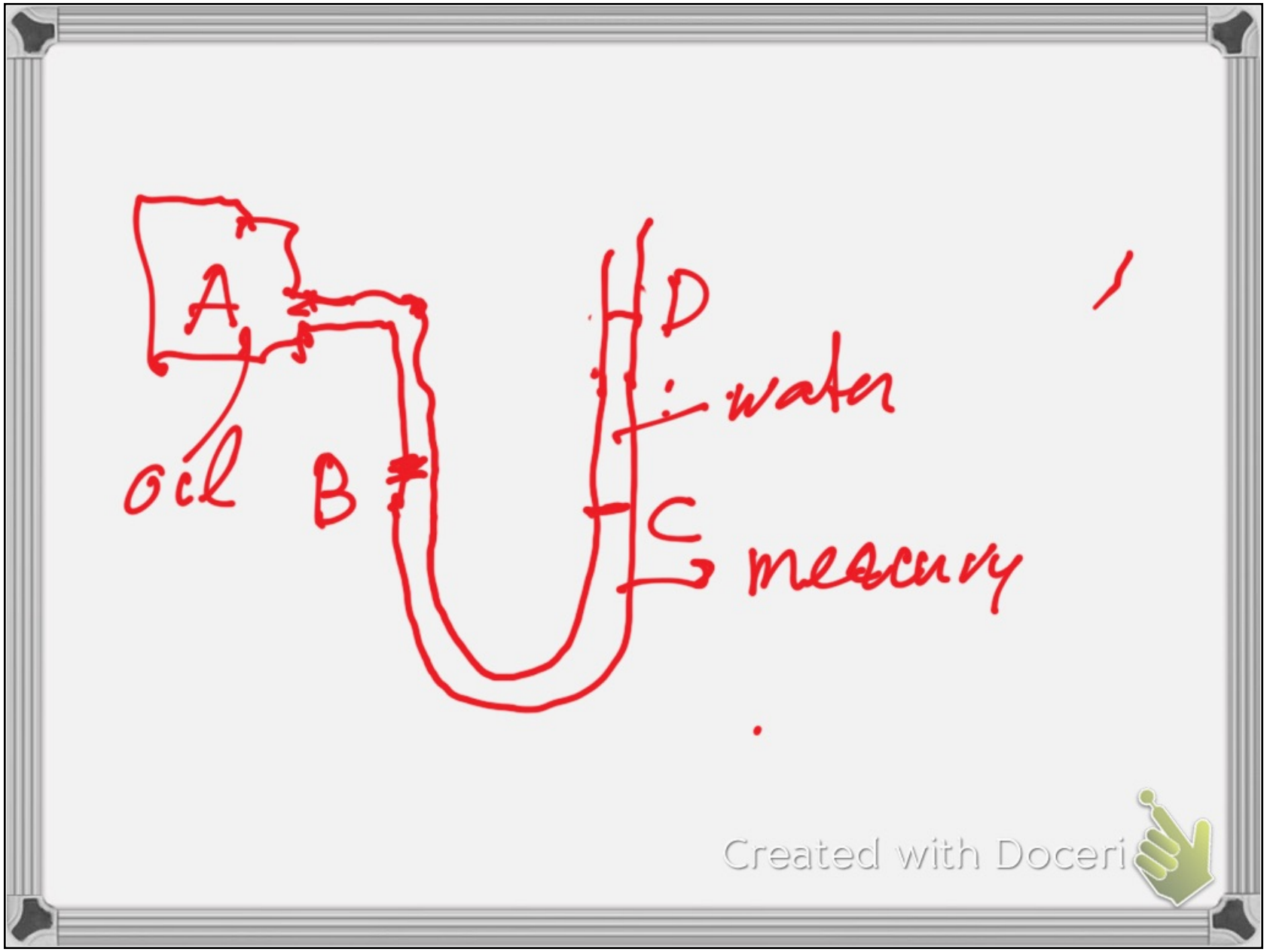
$F = ma$ → Standard

$1\ lbf = 1\ lbm\ 32.2 \frac{ft}{s^2}$

Pressure : Force on surface per unit area.

$$\frac{F}{A} = P$$


Hydrostatics
gravity
$P_A - P_B = -\rho g (H_A - H_B)$
density of the fluid
height (Z)
lower H → higher P
$\rho = \frac{m}{V}$
$-(H = Z)$
Created with Doceri


A
oil
B
D
water
C
mercury
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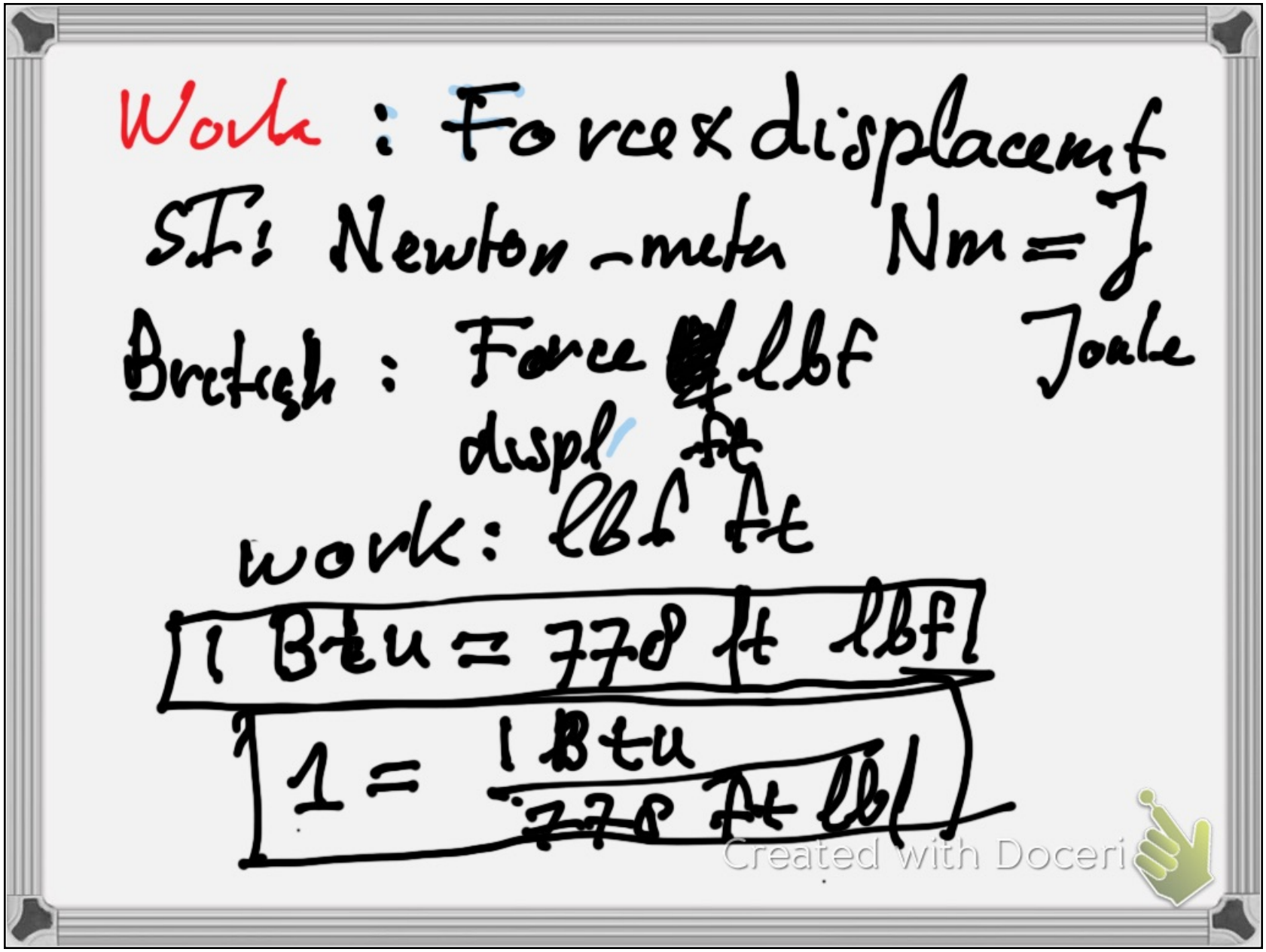
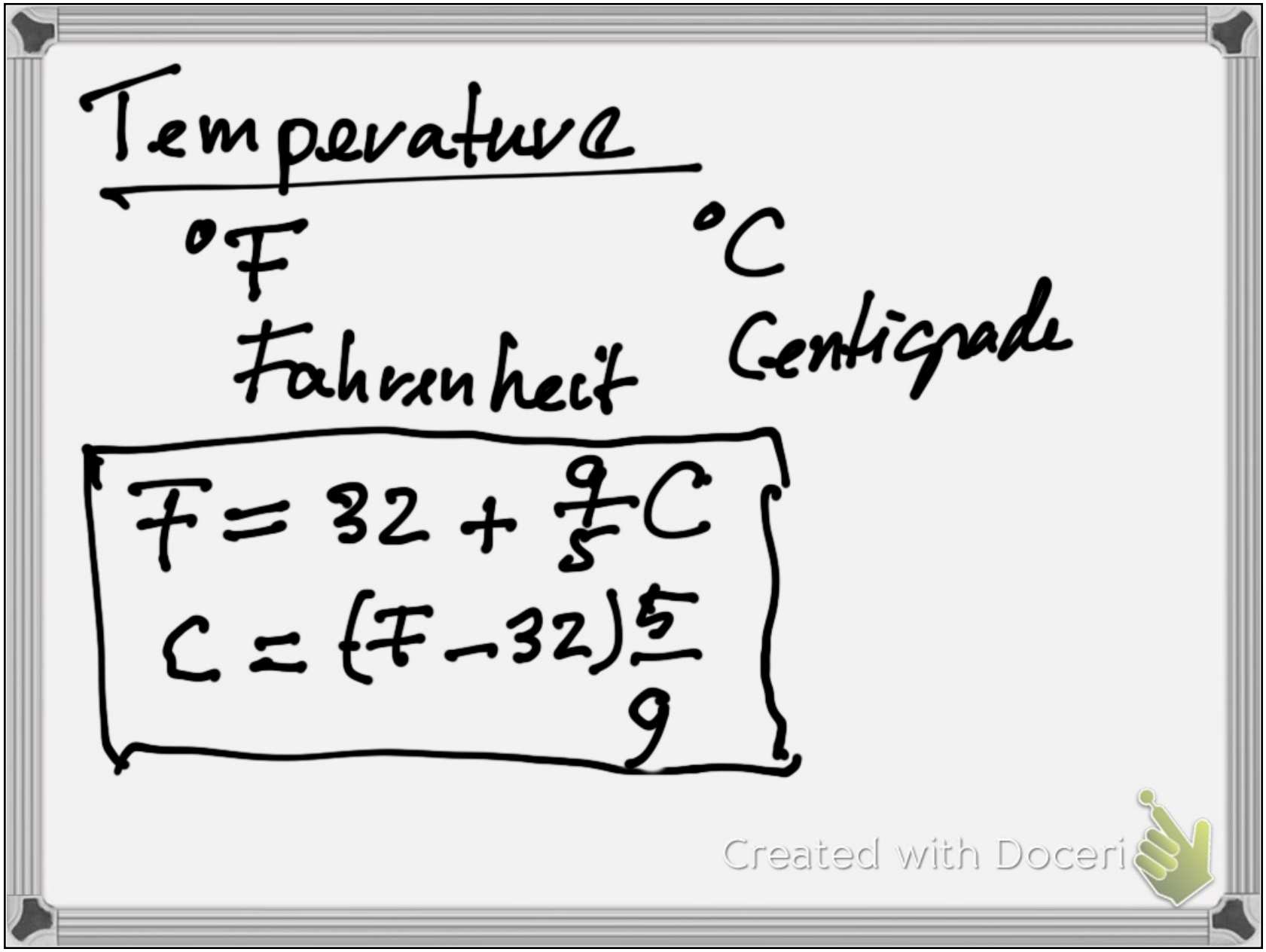
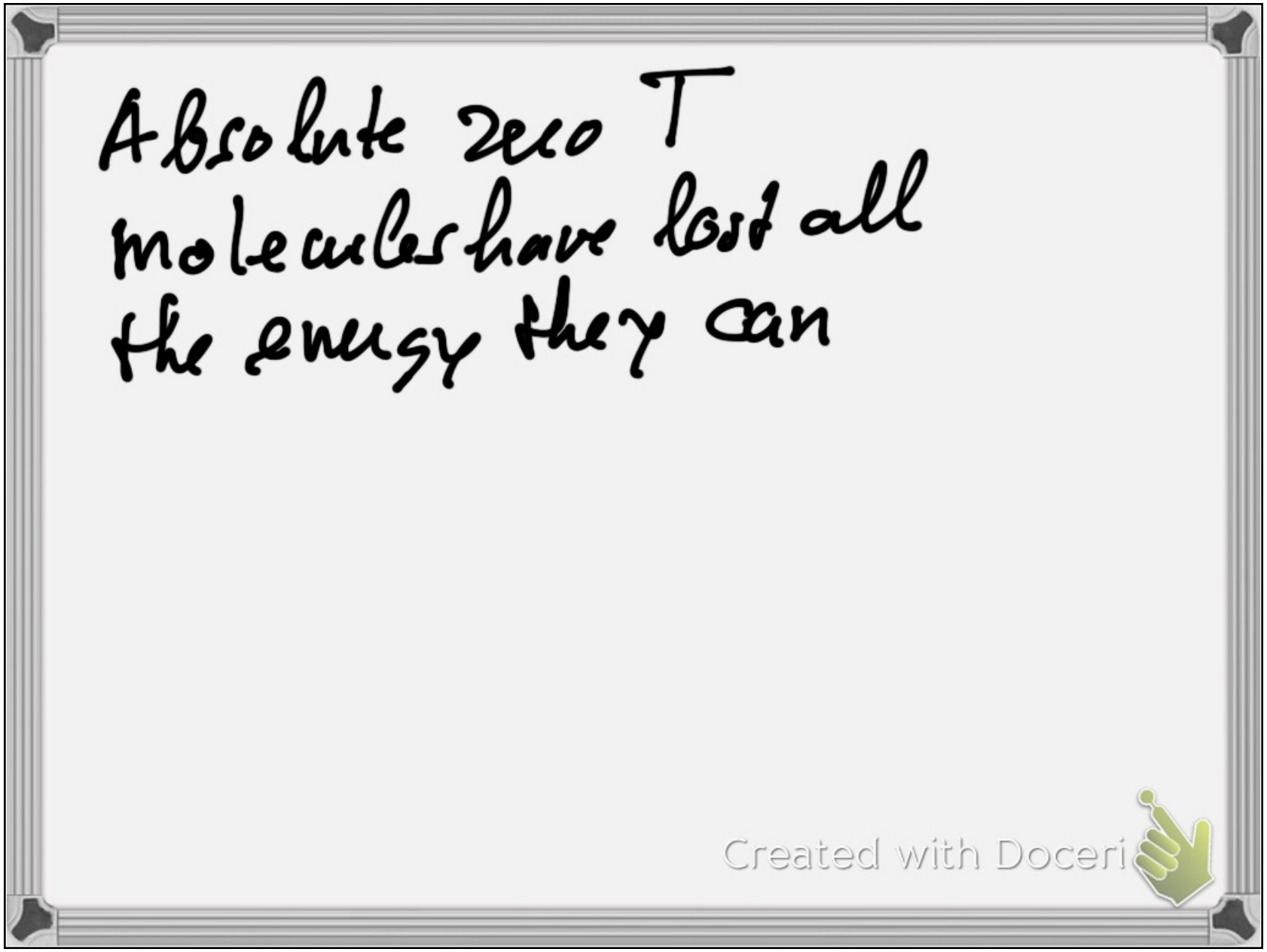
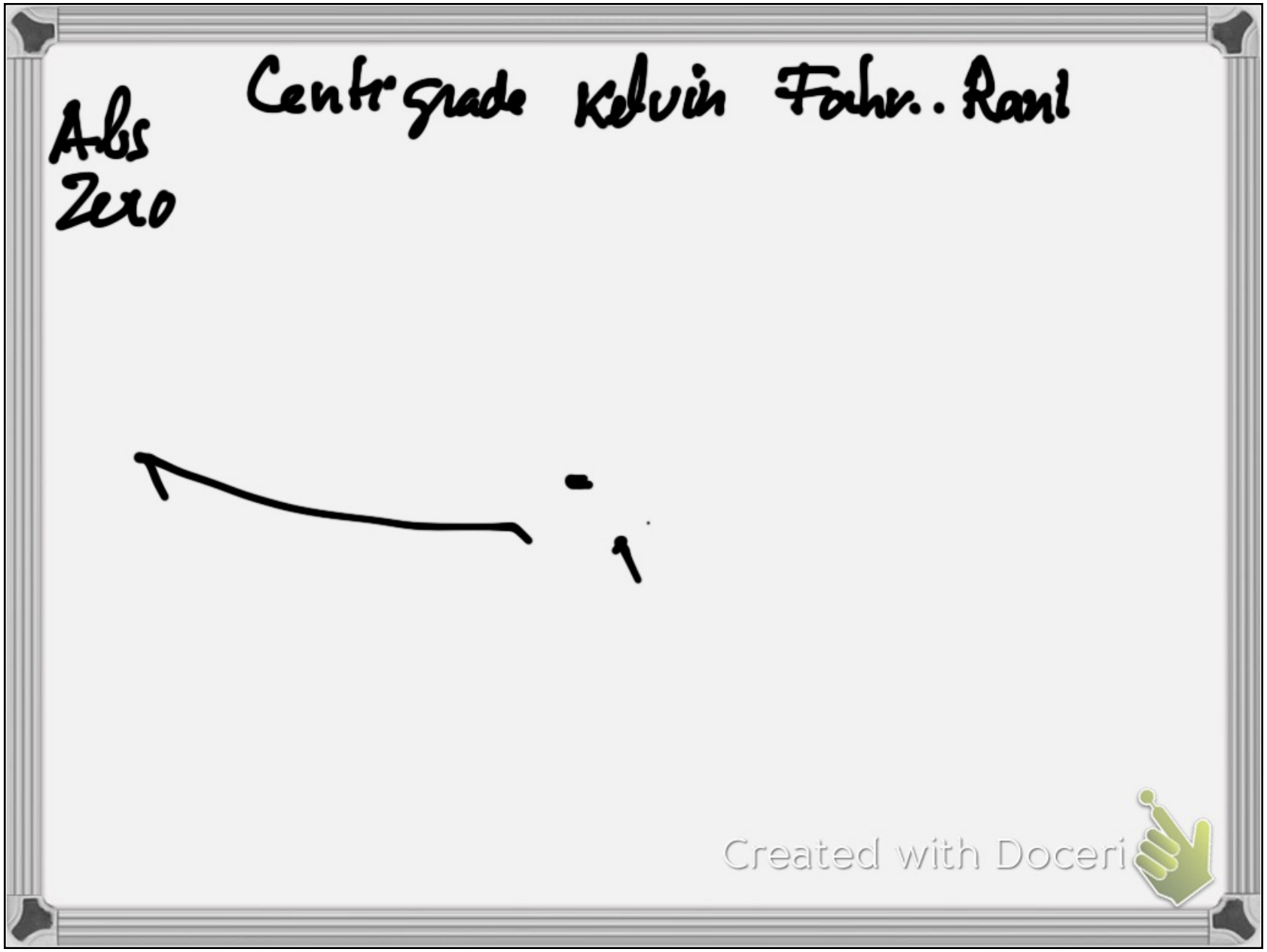
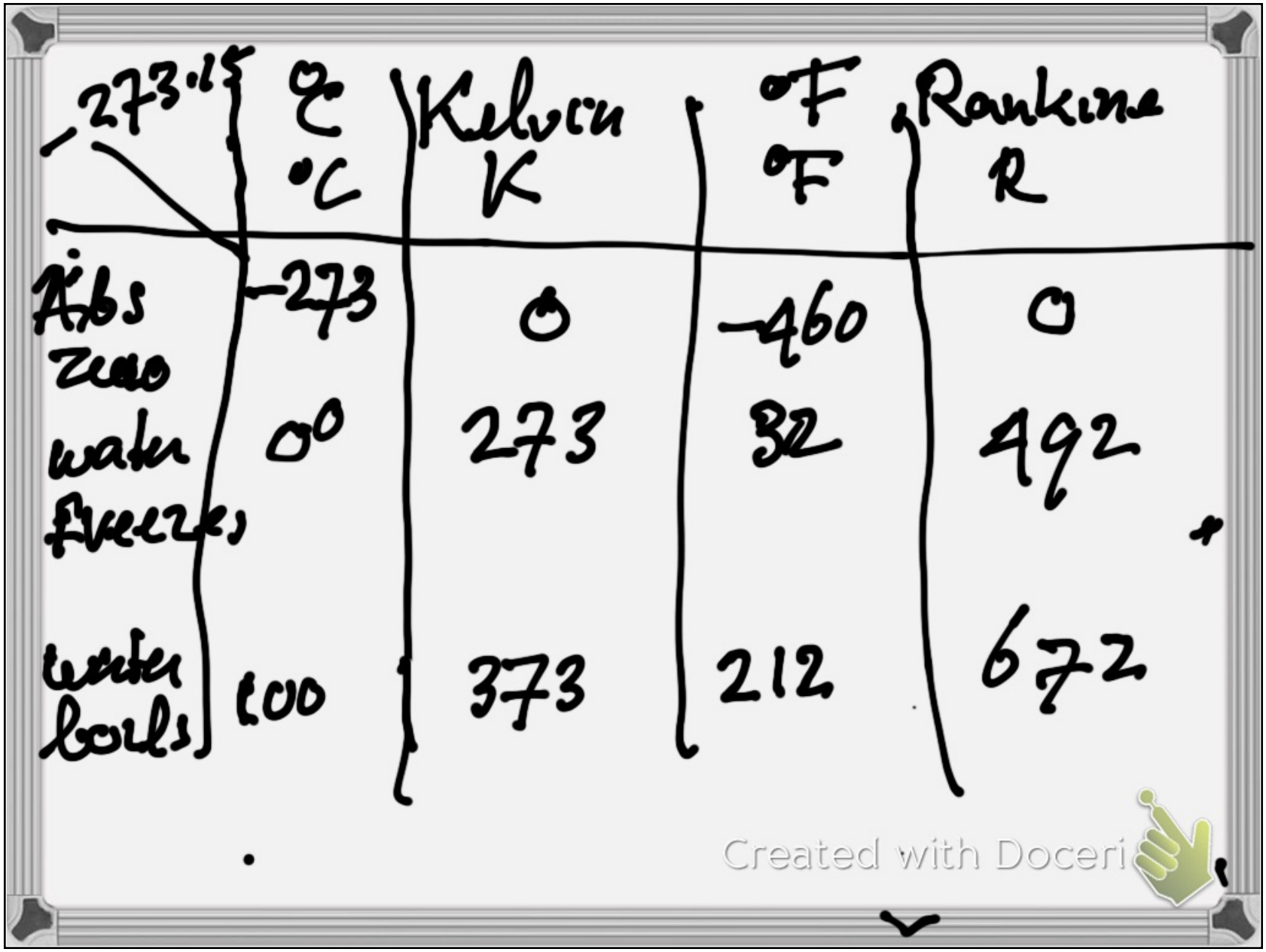
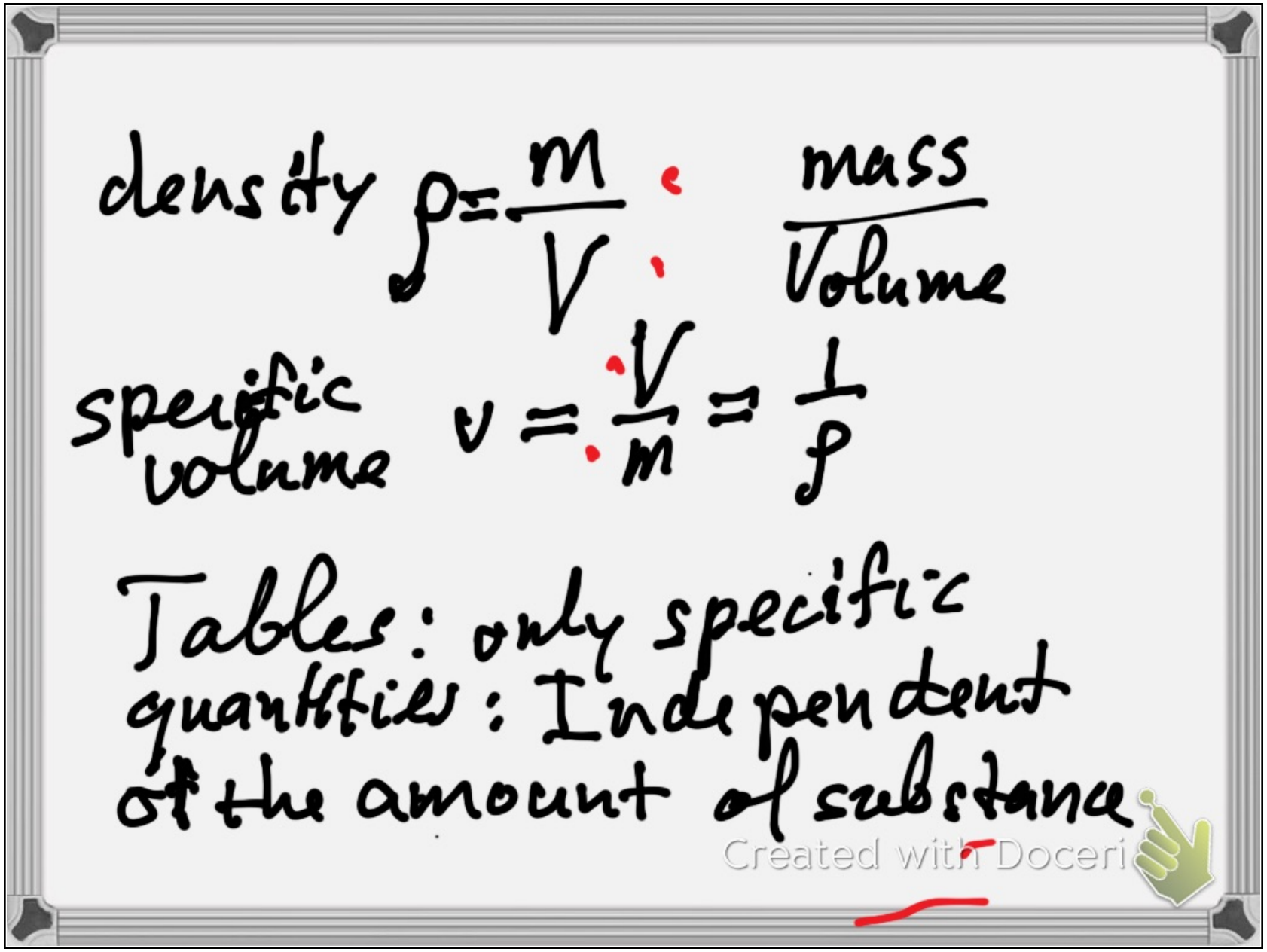

Work : Force x displacemt
SI: Newton-meter Nm = J
British : Force lbf Joule
displ ft
work: lbf ft
1 Btu = 778 ft lbf
1 = 1 Btu / 778 ft lbf
Created with Doceri


Temperature
°F
°C
Fahrenheit
Centigrade
$F = 32 + \frac{9}{5}C$
$C = (F - 32)\frac{5}{9}$
Created with Doceri


Absolute zero T
molecules have lost all
the energy they can
Created with Doceri


Centigrade Kelvin Fahr.. Rank
Abs
Zero
Created with Doceri


-273.15
°C
°C
Kelvin
K
°F
°F
Rankine
R
Abs zero
-273
0
-460
0
water freezes
0°
273
32
492
water boils
100
373
212
672
Created with Doceri


density $\rho = \frac{m}{V}$: $\frac{\text{mass}}{\text{Volume}}$
specific volume $v = \frac{V}{m} = \frac{1}{\rho}$
Tables: only specific quantities: Independent of the amount of substance
Created with Doceri