## Literal Equations Project



You are going to create a literal equations poster of your name. You will also complete a formula sheet (on notebook paper) with original formulas and the rewritten formulas (please show ALL work). On your formula sheet please explain the significance of each formula used.

## Guidelines:

You must have at least 15 letters on your poster. You can use a combination of your first, middle and last name.
If your first name is "Beth" you could use $V=B h$ to solve for the " $B$ " in Beth, and then solve for " $h$ " in your name with the same formula.
If your name is "Ana" you need to choose two different formulas for the letter "a". You cannot use the same rewritten formula twice.
You will have 42 different equations to choose from to create your poster.
On your poster you also must draw, cutout or print out some representation (picture) of who you are. Your poster must be neat and show creativity.

## Rubric

Formula Sheet = 50 points
Equations Solved Correctly on your poster = 30 points
Picture that represents you $=10$ points
Neatness/Creativity $=10$ points

10 points will be deducted from your grade for every day late.

## Example of poster

$$
\begin{aligned}
& M=(y-b) / x \\
& R= \\
& S= \\
& B= \\
& U= \\
& C= \\
& K=
\end{aligned}
$$

## Example of formula sheet

1. I used the slope formula $y=m x+b$.

$$
\begin{aligned}
& y=m x+b \\
& \frac{-b}{\frac{y-b}{x}}=\frac{m x}{x} \\
& \frac{y-b}{x}=m \\
& \text { or } m=\frac{y-b}{x}
\end{aligned}
$$

**Remember, you must show ALL work and include the significance of each formula to receive full credit. Show each step in solving your literal equations. **

Literal Equations Project

1. $A=\operatorname{lw} \quad$ Area of a rectangle
2. $A=1 / 2 \mathrm{bh}$ Area of a triangle
3. $\mathrm{A}=\pi r^{2} \quad$ Area of a circle
4. $\mathrm{A}=1 / 2 \mathrm{~h}\left(b_{1}+b_{2}\right) \quad$ Area of a trapezoid
5. $C=\pi d \quad$ Circumference of a circle
6. $C=2 \pi r \quad$ Circumference of a circle
7. $V=$ lwh $\quad$ Volume of a Rectangular Prism
8. $\mathrm{V}=\pi r^{2} \mathrm{~h} \quad$ Volume of a Right Circular Cylinder
9. $V=1 / 3$ Bh Volume of a Right Square Pyramid
10. $\mathrm{V}=1 / 3 \pi r^{2} \mathrm{~h}$ Volume of a Right Circular Cone
11. $\mathrm{I}=\mathrm{prt} \quad$ Simple Interest
12. $\mathrm{d}=\mathrm{rt} \quad$ Distance formula
13. $y=m x+b \quad$ Slope Intercept Form
14. $a^{2}+b^{2}=c^{2} \quad$ Pythagorean Theorem
15. $P=4 s \quad$ Perimeter of a square
16. $\mathrm{V}=\mathrm{Bh} \quad$ Volume of a prism
17. E = IR Voltage in an electric circuit
18. $\mathrm{a}+\mathrm{b}+\mathrm{c}=180$ Measure of angles in a triangle
19. $\mathrm{P}=I^{2} \mathrm{R} \quad$ Power in an electric circuit
20. $a x+b=0$ Linear equation in one variable
21. $\mathrm{s}=1 / 2 \mathrm{~g} t^{2} \quad$ Distance
22. $\mathrm{K}=1 / 2 \mathrm{~m} v^{2}$ Energy
23. $P=2 l+2 w \quad$ Perimeter of a rectangle
24. $a x+b y=c \quad$ Linear equation in two variables
25. $\mathrm{V}=\frac{K T}{P} \quad$ Volume of a gas
26. $\mathrm{x}=\frac{a+b}{2} \quad$ Average of two numbers
27. $\mathrm{D}=\frac{c-s}{n} \quad$ Depreciation
28. $F=9 / 5 C+32$ Celsius/Fahrenheit
29. $A=P+P r t$ Amount at simple interest
30. $\mathrm{SA}=2 \pi r^{2}+2 \pi r h$ Total surface area of a cylinder
31. E = VIT Electrical Energy
32. $\mathrm{J}=\mathrm{mhg} \quad$ Joules (energy)
33. $180(\mathrm{n}-2)=\mathrm{s} \quad$ Sum of angles formula
34. $\mathrm{q}=\mathrm{mc} \quad$ Heat transferred
35. $\mathrm{z}=\frac{x-\bar{x}}{s} \quad$ Population samples
36. $v^{2}=u^{2}+2$ as Velocity and Acceleration
37. $S A=L A+2 B \quad$ Surface Area of a Rectangular Prism
38. $S A=2 b h+2 b w+2 h w$ Surface Area of a Rectangular Prism
39. $S A=2 \pi r h+2 B \quad$ Surface Area of a Right Circular Cylinder
40. $\mathrm{SA}=\mathrm{B}=1 / 2 \mathrm{Pl}$ Surface Area of a Right Square Pyramid
41. $A=b h \quad$ Area of a Parallelogram
42. $\mathrm{E}=\mathrm{m} c^{2} \quad$ Energy

$$
\begin{aligned}
& E=I R \\
& M=\frac{r-0}{x} \\
& A=P_{4}+P_{r}
\end{aligned}
$$

$$
J=m h g
$$

$$
E=V I T
$$

$$
W=\frac{V}{L H}
$$

$$
S=
$$

$$
K=\frac{1}{2} m v^{2}
$$



$$
A=\frac{1}{2} h(B+b)
$$






