## WS 1-4 - Literal Equations

$\qquad$ Period

## Solve each equation for the indicated variable.

1) $u=k a$, for $a$
2) $z=\frac{a}{m}$, for $a$
3) $u=k-a$, for $a$
4) $g=-\frac{5}{x}$, for $x$
5) $u=-\frac{3}{4 x}$, for $x$
6) $2 c+4 a=-1$, for $a$
7) $m-a=n-p$, for $a$
8) $u=y+k+x$, for $x$
9) $z=b+m a$, for $a$
10) $-4 a+3=-\frac{v}{4 w}$, for $a$
11) $3 x=-4 n+2 p$, for $x$
12) $-5 a=-2 r+4 d$, for $a$

| 13. The equation for converting Celcius into Farenheit is: $F=\frac{9}{5} C+32$. | A. Convert $32^{\circ} \mathrm{F}$ into C . |
| :---: | :---: |
|  | B. Convert $85^{\circ} \mathrm{F}$ into C . |
|  | C. Convert $22^{\circ} \mathrm{F}$ into C . |
|  | D. Convert $-40^{\circ} \mathrm{F}$ into C . |
| 14. The equation for the volume of a cylinder is: $V=\pi r^{2} h$ where $r$ is the radius of the circle, and $h$ is the height of the cylinder. | A. Find the volume of a cylinder with radius of 3 and a height of 10 . |
|  | B. Find the height of a cylinder with a radius of 6 and a total volume of 226.2 |
|  | C. Find the height of a cylinder with a radius of 1.5 and a total volume of 42.4 |
|  | D. Find the height of a cylinder with a radius of 1 and a total volume of 47.1 |
| 15. The equation for simple interest is: $I=P R T$ where $l$ is the interest gained, $P$ is the principal, $R$ is the interest rate, and $T$ is the number of years. | A. How much interest is earned on $\$ 1000$ at a rate of $4 \%$ for 6 years? |
|  | B. If you earned \$3 in interest on \$400 with a rate of $5 \%$, how long did it take? |
|  | C. If you earned $\$ 2$ in interest on $\$ 1400$ with a rate of $2 \%$, how long did it take? |
|  | D. If you earned $\$ 15$ in interest on $\$ 100$ with a rate of $10 \%$, how long did it take? |

