NAME_____DATE_____PER._____

# LITERAL EQUATIONS

**Solve each equation for the indicated variable.**

| | |
|---|---|
| 1. r = _____ | Solve for 'r':     $A = P(1 + rt)$ |
| 2. t = _____ | Solve for 't':     $2s = n(a + t)$ |
| 3. v = _____ | Solve for 'v':     $D = \dfrac{m}{v}$ |
| 4. B = _____ | Solve for 'B':     $A = \dfrac{1}{3}Bh$ |
| 5. A = _____ | Solve for 'A':     $K = \dfrac{AP}{2}$ |
| 6. m =_____ | Solve for 'm':     $KE = \dfrac{mv^2}{2}$ |

| | |
|---|---|
| 7. m = _____ | Solve for 'm':   $y = mx + b$ |
| 8. y = _____ | Solve for 'y':   $2x + 3y = 6$ |
| 9. $F =$ _____ | Shoe sizes and foot length are related by the formula<br>$S = 3F - 24,$<br>where $S$ represents the shoe size<br>and $F$ represents the length of the foot, in inches.<br><br>Write the formula for $F$ as a function of shoe size. |
| 10. $F =$ _____ | Using the formula in #9, find the length of a foot in inches that has a shoe size of 9. |
| 11. _____ | Write an expression for the area of an equilateral triangle as a function of the length of one of its sides. |

| 12. _____ | Write an expression for the area of a circle as a function of its diameter. |
| 13. _____ | If the area of the base of a cone is $25\pi$ square units, express the volume of the cone as a function of its height. |

**Review.**

| 14. _____ | If $f(x) = -x^2 + 2x - 5$, then find $f(3)$. |
| 15. _____ | If $g(x) = 5x + 3$, then find $g(-7)$. |
| 16. _____ | Given $f(x) = 2x + 1$ and $g(x) = x^2 - x + 2$, find $g(2x)$. |