54. A formula for finding the value, A dollars, of P dollars invested at $i\%$ interest compounded annually for n years is $A = P(1 + 0.01i)^n$. Which of the following is an expression for P in terms of i, n, and A ?

F. $A - 0.01i^n$

G. $A + 0.01i^n$

H. $\left(\frac{A}{1+0.01i}\right)^n$

J. $\frac{A}{(1-0.01i)^n}$

K. $\frac{A}{(1+0.01i)^n}$

10. If c, d, and f are nonzero real numbers and $cd = f$, which of the following equations for c must always be true?

F. $c = df$

G. $c = \frac{d}{f}$

H. $c = \frac{f}{d}$

J. $c = f - d$

K. $c = \sqrt{df}$

57. Which of the following is an equivalent expression for r in terms of S and t whenever r, S, and t are all distinct and $S = \frac{rt-3}{r-t}$?

A. $\frac{St-3}{S-t}$

B. $\frac{S-3}{S-1}$

C. $\frac{S-t}{S-3}$

D. $\frac{St-3}{S+t}$

E. $\frac{3}{t-S}$

D = up or down
change in position

in positio

All you're doing here is solving for r

$$S(r-t) = rt-3$$
$$Sr - St = rt - 3$$
$$Sr - rt = St - 3$$
$$r(S-t) = St-3$$
$$r = \frac{St-3}{S-t}$$

GO ON TO THE NEXT PAGE.

35. A formula for the area of a trapezoid is $A = \frac{1}{2}(b_1 + b_2)h$, where A is the area, b_1 and b_2 are the lengths of the bases, and h is the height of the trapezoid. In terms of A, b_1, and b_2, $h = ?$

A. $\frac{1}{2}A - b_1 - b_2$

B. $2A - b_1 - b_2$

C. $\frac{2A - b_1}{b_2}$

D. $\frac{\frac{1}{2}A}{b_1 + b_2}$

E. $\frac{2A}{b_1 + b_2}$

Solving for one Variable "in terms of" the others

"In terms of" means solving for one Variable and comparing them to the others. This Time solve for h

$$\frac{2}{b_1+b_2} * A = \frac{b_1+b_2}{2} * h * \frac{2}{b_1+b_2} \Rightarrow h = \frac{2A}{b_1+b_2}$$

42. A formula for the area of a rhombus is $A = \frac{1}{2}d_1d_2$, where d_1 and d_2 are the lengths of the diagonals. Which of the following is an expression for d_2 ?

F. $\frac{2A}{d_1}$

G. $\frac{A}{2d_1}$

H. $\frac{Ad_1}{2}$

J. $2(A - d_1)$

K. $A - \frac{d_1}{2}$