Monthly Payment Formula

$$M = \frac{P\left(\frac{r}{12}\right)\left(1+\frac{r}{12}\right)^{(12t)}}{\left(\left(1+\frac{r}{12}\right)^{(12t)}-1\right)}$$

P= Principal; r = Interest rate; t= years

Monthly Interest Formula

$$I = P\left(\frac{r}{12}\right)$$

Daily Interest Formula

$$I = P\left(\frac{r}{365}\right)$$

Front End Ratio = $\frac{\text{Monthly Housing Expenses}}{\text{Monthly Gross Income}}$ < 28%

Back End Ratio = $\frac{\text{Total Monthly Expenses}}{\text{Monthly Gross Income}}$ < 36%

Area of a regular Octagon

$A = \frac{1}{2}ap$ a = apothem; p = perimeter

BTU Rating

w = width of the room; h = height of the room
i =insulation factor; l = length of the room
e = exposure factor

$$BTU = \frac{while}{60}$$