

What Am I?

I soar without wings, I see without eyes,
I've conquered the world, yet I've never been
anywhere but home.

Solve the code below and use it to decipher the answer to this riddle, by finding the correct expressions for each letter.

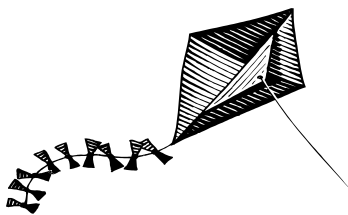


This worksheet uses the following function definitions.

$$f(x) = \frac{1}{x}, \quad g(x) = x + 4, \quad h(x) = x^2.$$

Find the correct expressions for the following and use the answers to solve the code below.

| | |
|-------------------------|-------------------------|
| $A = 2f(x) =$ | $I = 2g(x) =$ |
| $N = g(2x) =$ | $R = f(2x) =$ |
| $O = h(x+1) =$ | $D = \frac{g(2x)}{2} =$ |
| $Y = \frac{h(2x)}{2} =$ | $U = 4h(x) =$ |
| $H = g(x+1) =$ | $T = \frac{f(2x)}{2} =$ |
| $M = f(x+1) =$ | $G = h(4x) =$ |



| | | | | |
|----------------|-----------------|-----------------|----------------|------------|
| $2x+8$ | $\frac{1}{x+1}$ | $2x^2$ | x^2+2x+1 | $4x^2$ |
| $\frac{1}{2x}$ | $2x+8$ | $\frac{1}{x+1}$ | $\frac{2}{x}$ | $16x^2$ |
| $2x+8$ | $2x+4$ | $\frac{2}{x}$ | $\frac{1}{4x}$ | $2x+8$ |
| x^2+2x+1 | $2x+4$ | $x+2$ | ' | x^2+2x+1 |
| | | | | $x+5$ |