

Question: Write a linear function that satisfies the given conditions.

$$f(0)=4, f(1)=7 \quad \text{and} \quad h(0)=13, h(3)=1.$$

Answer.

$$f(0)=4, f(1)=7$$

$$f(x)=kx+b$$

$$\begin{cases} 4 = 0 + b \\ 7 = k + b \end{cases}$$

$$k = 3, b = 4$$

$$f(x) = 3x + 4$$

$$h(0)=13, h(3)=1$$

$$h(x)=kx+b$$

$$\begin{cases} 13 = 0 + b \\ 1 = 3k + b \end{cases}$$

$$k = -4, b = 13$$

$$h(x) = -4x + 13$$