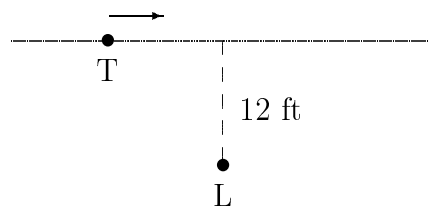


Quiz #5

SHOW YOUR WORK

Tafu is speed-walking East along the Burke-Gilman trail at a speed of 6 ft/sec. A streetlight is 12 feet South of the trail (see picture). Tafu starts his stopwatch when he is 15 feet West (and 12 feet North) of the light.



(a) (3 points) Tafu looks at his stopwatch and it reads t seconds. What is his distance d from the light?

(b) (5 points) Suppose Tafu is East of the light. Give a function $t = f(d)$ relating the time t to the distance d . What is the domain and range of this function?

(c) (2 points) Does the function in (b) work when Tafu is West of the light? Why or why not?