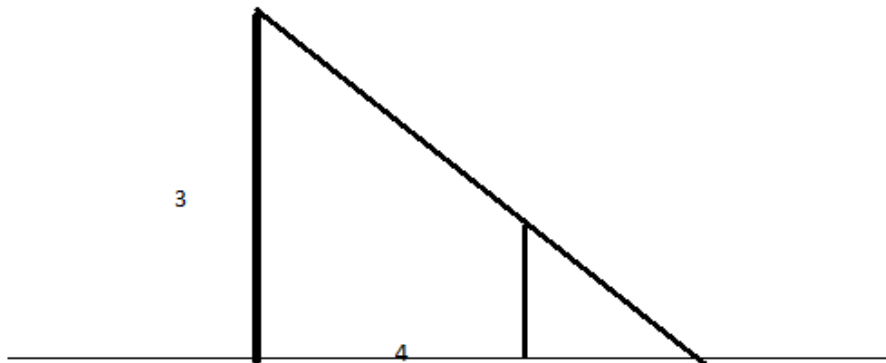You stand 4 meters from the bottom of a lamp post that is 3 m tall. How far would a firefly fly if it flew from your big toe to the lamp?

Suppose, for example, that you're 1.8 meters tall

That means that the shadow would be

(4+x)/4=3/1.8

4+x=6.66

So the shadow would be 2.66

Firefly would fly up to $\sqrt{3^2 + 6.66^2}$=7.3