

# Crossed Circuits: Problem Handouts



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# Crossed Circuits

## Problem Statement

"How long does it take you to dry your hair?" came Chris's scream from the kitchen. "I'm trying to concentrate on my physics homework!"

"Do you want the answer as a fraction of a year?" came Pat's retort from the bathroom. "Then you can have fun looking up the conversion to minutes in the back of your textbook!"

"You've been at it for at least 20 minutes. You know, you should have to pay extra toward the electric bill. I bet you spend an hour a day drying your hair. I think \$5 extra each month would be about right."

"You've gotta be kidding me. With you and your night light burning all night long, I bet you use much more electricity than me! What are you afraid of anyway?"

"Yeah, but sometimes you fall asleep with your TV blaring. I bet that uses much more than my little night light."

"Oh, please! That only happens once a month. Your Winnie-the-Pooh light is on every night! Besides, how about your incessant showering. You take at least twice as long in the shower as I do. That must cost much more than running my hair dryer. What do you do in there anyway?"

Which roommate should pay a utility premium, Pat or Chris?

How much extra?