Description: How many rods for a ladder with 125 steps? **Parent Tape: Early algebra, investigating linear functions, Series 5 of 7** **Date: 2005-12-15** **Location: Hubbard School** **Researcher: Professor Carolyn Maher**	**Transcriber(s): Baldev, Prashant** **Verifier(s): DeLeon, Christina** **Date Transcribed: Spring 2008** **Page: 1 of 2**

Speaker Transcription

R3 So now I have a question. I see what you are doing. So for what number … for odd number … this is what you do, right? Let's say, for one twenty-five. Is that odd, one twenty-five? How will you do for one twenty-five?

Ariel The Odd rule?

R3 Yeah.

Ariel I will go to one twenty-four which is … I got a one twenty-fourrrrr… wait, wait, what am I doing it is seventy-two, I believe, no, no, don't think that… sixty two … hah, hah, hah. I'm smart.
[Ariel writes:

$$\begin{array}{r} 62 \\ \underline{+62} \\ 124 \end{array}$$

]

Ariel Yeah, sixty-two.

R3 What is it? How many you got?

Ariel It is sixty-two, half of one twenty-four.

R3 Yeah, but then how many rods that ladder is going to have? For one twenty-five

Ariel I have to figure that out?

R3 Yeah, can you figure that out?

Ariel I doubt it.

Ariel Let me see, if this is …

R3 You have got your rule, right? The rule is here.

Ariel [making a ladder] My rule, uh my perfet rule, I have to set it up for this huge thing.

R3 Are you saying you are going to build that entire one twenty-four? One twenty-four steps?

Ariel No, this is two right here. [points to the ladder of two steps that he has constructed]

Ariel [counts the rods] One, two, three, four, five, six, seven, eight.

Ariel For sixty, it is one hundred and ninety-eight, add two it is two hundred. Wait a minute. No, we add six, oh.

Ariel [again counts the rods] One, two, three, four, five, six, seven, eight.

Description: How many rods for a ladder with 125 steps? **Parent Tape: Early algebra, investigating linear functions, Series 5 of 7** **Date: 2005-12-15** **Location: Hubbard School** **Researcher: Professor Carolyn Maher**	**Transcriber(s): Baldev, Prashant** **Verifier(s): DeLeon, Christina** **Date Transcribed: Spring 2008** **Page: 2 of 2**

Ariel Wait a minute. One hundred ninety-eight.

Ariel [continues by counting the rods] One ninety-nine, two hundred, two-o-two, two-o-three, two-o-four and two-o-six.

Ariel [looks at R3] Two hundred and six rods.

R3 Now you were thinking in your head, so I don't know, so it is time for you to explain back to me. So I follow you from the beginning, from the beginning. [pointing to the work that Ariel had just done] One twenty five steps. You do a lot in your head, I just cannot follow you.

Ariel One twenty five rounded to the nearest even number, it could be one twenty four or one twenty six, I did one twenty-four.

R3 OK.

Ariel Then one twenty four divided by two is sixty two.

R3 How did you find out, OK?

Ariel Sixty is... I went back to my recent observations, sixty is one hundred ninety-eight and then I made these two steps which gave me eight more rods which makes it one hundred … two hundred and six rods. Now we shall multiply

Ariel [starts writing in his paper and mumbles and gesticulates as he writes]

[He writes:

$$\begin{array}{r} 206 \\ \times 2 \\ \hline 412 \\ -\ 2 \\ \hline 410 \end{array}$$

]

Ariel Four-ten.

R3 So.