

Clinical Interview — Grayson Wheatley

Transcript, Part 6: Toy cars problem

(“G” is Grayson Wheatley; “S” is the student.)

G – I would like for you to look at this one. Read that top problem, please.

S – 6 toy cars can be parked in a row 16 inches long. How many cars can be parked in a row 64 inches long? And, then 240 inches long.

G – First just...

J- So 6 could be parked...

G – OK, so you set up 6 over 16

J- and x over 64. Then I would do 6 times 4, 24, and just do...6 times 6 equals 36, 6 time times 3 is 6 times 4 is 18.

G – Let’s say with 64 on the top and 6 on the bottom.

S – 4 6’s, 18

G – 24

S – 736

G – OK, you got...

S – 384

G – Yes and that is the result of multiplying 6 times 64.

S – And, then we would do 384 divided by 16.

G – OK, we won’t carry that out, but then this result you would get would be...your answer is to how many cars we could park. Just looking at that, estimate how many we could park.

S – 2 or 3.

G – 2 or 3 cars?

S – um hmm.

G – Oh, well we have some other questions, so we won’t carry this out.

S – Well actually you’ve got that then. How would you be...16, 14

G – 16 or 14. OK so it would be about 16 or 14 cars that could be parked in there. OK, good.

Part 7

G – Next question. Can you write 2, 3 decimals between 6 and $3/10$. If you would write 6 and $3/10$ then and over here 6 and $5/10$. Can you write 3 decimal numbers between those that are larger than this and less than this?

S – 6.4, 6.45, 6.468.

G – So you could throw in 3 digits. OK. Great. What would I have to add to $17 \frac{1}{2}$ (write that down, if you like) $17 \frac{1}{2}$ to get $20 \frac{1}{4}$.

S – 20 and $\frac{1}{4}$

G – Yes. See you have written this as a decimal. OK.

S – So what was your question?

G – My question was, what would I have to add to $17 \frac{1}{2}$ to get $20 \frac{1}{4}$?

S – If I do 20 divided by...20 minus 17...5. OK, I would do 17 minus 5 is 7, 2, 1. 12.5. I'll go back, check 17.5 and 12.75.

G – What do you think? What did you get when you added those?

S – I have 10 too much.

G – Uh huh. So what would the answer be if you have 10 too much?

S – 2.75. I forgot to cross out the 2 from the 1.

G – Uh huh, so you just want to write that over here?

S – It would be 20.25 minus 17.5 and that would be 2.75.

G – OK, and just how you did it. Now if we think in fractions now. If we are at $17 \frac{1}{2}$, what would we have to add to get 20? Just mentally what would we have to add to get from $17 \frac{1}{2}$ to get up to 20?

S – $3 \frac{1}{2}$.

G – Let's see....

S – $2 \frac{1}{2}$.

G – $2 \frac{1}{2}$, OK how much more do we have to add to get $20 \frac{1}{4}$?

S – $1/4$, so it will be $2 \frac{3}{4}$ to get....

G – So $2 \frac{3}{4}$ and you wrote $2 \frac{3}{4}$ in decimal form. Makes good sense to me.