Problem Solving (Equal Shares)

In a Year 7 class, the teacher asks the class to work on the following problem*:

“Jack has £3.20 and Jill has £4.50.

How much money will they each have, if they share their money equally?”

Students A and B explain what each did.

Student A: Hmmm… so I have to balance the two amounts, so Jack and Jill have the same in the end! Let’s see…

3.20 and 4.50

So, I need to take some from the right side. I’ll take 50p:

3.70 and 4.00

Getting close… I’ll take off 20p this time:

3.90 and 3.80

Oh wait! I took too much!

I'll just give 5p back to the right side and have:

3.85 = 3.85

Done!

Student B: What took you so long? All you had to do was add 3.20 and 4.50, and halve the total!

You are the teacher and you have just heard students A and B.

Questions:

a. What are the aims of using this problem in class?

b. What do you think are the differences between the two suggested solutions?

c. What are the pros and cons in each of these solutions?

d. How would you respond to each of these students and to the whole class?

*Inspired by: https://allaboutmaths.aqa.org.uk/attachments/5592.pdf

This is a Task developed by the MathTASK 2016-17 team. Let us know whether it is useful and how we can improve it at @mathtask or email Irene Biza at i.biza@uea.ac.uk. For more tasks, visit MathTASK.