Quiz Week 4

March 29, 2013

1. *What are the numbers?*

Proof. Let us look at each of these games separately. We know from lecture that a blue stem with a red stem on top of it is $\frac{1}{2}$, so this is the number for the first game. For the second game, we only have one blue piece which is one move for Left, and therefore has a value of 1. For the third and final game, we have to red stems on top of each other so that is two moves for Right and has a value of -2. Adding up these game we get $\frac{1}{2} + 1 + (-2) = -\frac{1}{2}$.

□

2. *What are the numbers?*

Proof. Since each Left option is less than each Right option, since $-4 < -1$ we take the simplest number between -4 and -1 which is -2.

□

3. *What are the numbers?*

Proof. Since each Left option is less than each Right option, since $1 < 1\frac{3}{4}$ we take the simplest number between 1 and $1\frac{3}{4}$ which is $1\frac{1}{2}$.

□

4. *What are the numbers?*

Proof. Since each Left option is less than each Right option, since $0 < 2\frac{3}{4}$ we take the simplest number between 0 and $2\frac{3}{4}$ which is 1.

□

5. *What are the numbers?*

Proof. Since each Left option is less than each Right option, since $-1 < \frac{3}{4}$ we take the simplest number between -1 and $\frac{3}{4}$ which is 0, so the value of $\{-1|\frac{3}{4}\}$ is 0. Then adding the games $\{-1|\frac{3}{4}\}$ and 3 is the same as adding $0 + 3 = 3$ so the game $\{-1|\frac{3}{4}\} + 3$ has value 3.

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