

Game 5 – Environmental Journals

Three environmental journals—*Green Earth*, *Pollution Watch* and *Wildlife Defenders*—will each publish exactly three articles, each of which was written by one of four distinguished academics—Houck, Lazarus, Matthews and Reinhard. The publication of the articles in the journals is consistent with the following conditions:

The three journals collectively publish at least twice as many articles by Houck as they do articles by Reinhard.

Green Earth does not contain an article by Reinhard, but has at least one article by Matthews.

Pollution Watch has at least one article by Houck.

Wildlife Defenders has exactly two articles written by the same author.

- Which one of the following could be a complete and accurate listing of the authors and the journals in which their articles appear?
 - Green Earth*: Lazarus, Matthews, Reinhard; *Pollution Watch*: Houck, Lazarus, Reinhard; *Wildlife Defenders*: Houck, Matthews, Matthews
 - Green Earth*: Houck, Matthews, Matthews; *Pollution Watch*: Houck, Reinhard, Reinhard; *Wildlife Defenders*: Houck, Lazarus, Reinhard
 - Green Earth*: Houck, Lazarus, Matthews; *Pollution Watch*: Houck, Lazarus, Matthews; *Wildlife Defenders*: Houck, Reinhard, Reinhard
 - Green Earth*: Lazarus, Lazarus, Matthews; *Pollution Watch*: Houck, Houck, Houck; *Wildlife Defenders*: Houck, Reinhard, Reinhard
 - Green Earth*: Houck, Houck, Lazarus; *Pollution Watch*: Houck, Matthews, Reinhard; *Wildlife Defenders*: Houck, Lazarus, Lazarus
- What is the maximum number of Houck articles that can be included in the three journals?
 - three
 - four
 - five
 - six
 - seven
- If *Wildlife Defenders* has two articles by Reinhard and one by Houck, what is the maximum number of articles by Lazarus that can be in the three groups?
 - one
 - two
 - three
 - four
 - five
- If *Pollution Watch* and *Wildlife Defenders* publish articles from the exact same authors in the same respective numbers, the three journals can publish exactly
 - one article by Reinhard
 - three articles by Matthews
 - four articles by Matthews
 - three articles by Reinhard
 - four articles by Reinhard
- If two of the journals publish at least one article by Reinhard, then *Pollution Watch* must contain
 - one article by Matthews and one article by Reinhard
 - one article by Matthews and one article by Houck
 - one article by Reinhard and one article by Houck
 - one article by Reinhard and one article by Lazarus
 - one article by Houck and one article by Lazarus
- If the journals publish the maximum number of articles by Lazarus, then the journals must publish exactly
 - one article by Houck and one article by Matthews
 - one article by Reinhard and four articles by Lazarus
 - one article by Reinhard and four articles by Houck
 - two articles by Houck and one article by Matthews
 - seven articles by Lazarus

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1. D
2. E
3. B
4. B
5. C
6. D

This is a classic LSAT–style game of putting things in groups. It has a "multiple" element to it in that elements can fill more than one group.

Question 1 tests the rules—four of the answers violate one of the conditions. For Question 2, look at the rules for limitations. The only two rules limiting Houck are *exactly* two articles by the same author in *Wildlife Defenders* and the requirement of one Matthews article in *Green Earth*.

On Question 3, five of the nine spaces have been occupied when you include the Matthews article in *Green Earth* and the Houck article in *Pollution Watch*, and Reinhard and Houck articles are of equal numbers given that two Reinhard articles are in *Wildlife Defenders*. This means another two Houck articles must be published between the remaining four spaces, leaving two for Lazarus.

For Question 4, the key is the two and one rule for *Wildlife Defenders* combined with the rules about Houck and Reinhard. All four answers break a rule, mostly implicating this in some fashion. (Also note you can't have even numbers of Matthews articles under the stipulation of this question) Question 5 is C because Reinhard must publish only two articles under the Houck and Reinhard rule—there isn't enough room for Reinhard to have three. This means there is one each in *Pollution Watch* and *Wildlife Defenders*, and since there is already a Houck article in the former under the rules, this leads to the answer.

You get to D on Question 6 because while Lazarus can take two spots in both *Green Earth* and *Pollution Watch*, the third journal must have *exactly two* of one of its authors. Because of the Reinhard and Houck rule, the third spot must then go to Houck.