

Game 36 – Lawnmowers

A yardworker will mow the lawns of nine different houses—F, G, H, I, J, L, M, Q and R—using three different lawnmowers—a Kubota, a New Holland and a Snapper. Each lawn is mowed exactly once with exactly one of the three mowers. The following conditions govern the mowing of the lawns:

At most two lawns are mowed with the New Holland.

Lawns R and I are mowed with different lawn mowers.

If lawn M is mowed with the Snapper, lawn R is mowed with the Kubota.

If lawn F is mowed with the Kubota, lawn L is mowed with the New Holland.

Lawns G and J are mowed with the same lawn mower.

- Which one of the following could be the lawns mowed with the Snapper?
 - F, M, Q
 - J, L, M
 - F, I, Q, R
 - F, G, L, Q
 - H, M, R
- Which one of the following could be true?
 - The New Holland mows both lawns G and I.
 - The Snapper mows lawn M and the Kubota mows lawn I.
 - The New Holland mows lawn J and the Kubota mows lawn F.
 - The Snapper mows only lawn F and the New Holland mows only lawn M.
 - The New Holland mows only lawn M and the Kubota mows only lawn R.
- If the New Holland mows lawns M and Q, which one of the following must be true?
 - Lawn R is mowed with the Snapper.
 - Lawn I is mowed with the Kubota.
 - Lawn F is mowed with the Snapper.
 - Lawn J is mowed with the Kubota.
 - Lawn G is mowed with the Snapper.
- If the Snapper is not used to mow any lawns, which one of the following could be true?
 - The New Holland is used to mow both R and M.
 - The Kubota is used to mow both F and L.
 - The New Holland is used to mow both F and R.
 - The New Holland is used to mow both G and J.
 - The New Holland is used to mow exactly one lawn.
- Which one of the following CANNOT be a complete and accurate list of the lawns mowed by the Kubota?
 - F, G, J, M, Q
 - F, H, L, K, R
 - G, H, J, L, K, Q
 - G, H, I, J, L
 - F, G, J, M
- If the New Holland mows lawn Q and no other lawns, which one of the following could be a complete and accurate list of the lawns mowed by the Snapper?
 - F, G, I, J, M, R
 - G, J, I, L, M, H
 - F, G, H, I, J, M
 - F, G, H, L, M
 - G, M, R

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

This is a game of groups—the lawnmowers and the lawns mowed by each. Note the space limitation for the lawns mowed by the New Holland. Whenever there is a single space limitation sticking out like this, it is usually very important to the game.

Question 1 is the usual testing of the rules—all of the answers either directly or by inference violate one of the conditions set out. Likewise, on Question 2, four of the answers break rule by way of inferences. If you don't see how they break a rule, go back and plug them out.

On Question 3, lawn F must be mowed with the Snapper because if lawn F is mowed by the Kubota, lawn L is mowed by the New Holland—but in this question, it isn't. In Question 4, you can deduce that either R or I must be mowed by the New Holland because these can't be mowed by the same mower (and you only have two mowers left to choose from), and you can also deduce that either F or L must be mowed by the New Holland based on the conditional rule.

Question 5 is B because if F is mowed with the Kubota, L is mowed with the New Holland. On Question 6, you should be able to deduce that F as well as either R or I must be mowed by the Snapper because if F is mowed by the Kubota, L is mowed by the New Holland (but it is not). The answers all violate this deduction or another basic rule.