## (C) Vloxes (1/2) [Solution]

### C1.

A. the two mellivu vloxes: B,F
B. the two mellovu vloxes: A,I
C. the two kibb vloxes: A,H
D. the two azeltorf vloxes: A,G

E. the qliqli vlox: D F. the imxo vlox: I

G. the three ravv vloxes: E,F,G
H. the kibbish-zuff vlox: I
I. the zuffish-kibb vlox: C

#### **C2.** wommish-tezz

#### Solution path:

There are many potential ways to figure out the solution. Here is one way that it could be figured out.

From looking at the pictures, you can see that the vloxes vary along these 4 dimensions:

- Their size
- Whether or not they have a horn
- The direction of the stripe on their bodies
- How shaded their legs are

Therefore, we can assume that the adjectives in the descriptions refer to these properties.

In the encyclopedia, we see the phrases *completely qliqli* and *nearly azeltorf*. To use *completely* or *nearly*, the adjective must refer to something that is a scale with a definite end (e.g., you can say "completely full" but not "completely large" or "completely four-legged.") The only attribute that has this property is legshadedness. The descriptions say "the two azeltorf vloxes" and "the qliqli vlox." There is only one completely unshaded vlox, and two completely shaded vloxes, so we can conclude that *azeltorf* = "shaded" and *qliqli* = "unshaded." (Note that, when a word like *full* or *empty* is used in isolation, it refers to the most extreme version of the word—completely full or completely empty). Thus the two azeltorf vloxes are A and G, and the qliqli vlox is D.

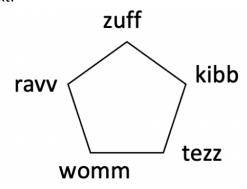
In the encyclopedia, the words that take the form WORDish-WORD are made of 5 basic pieces: *zuff, kibb, tezz, ravv, womm*. This fits with the fact that there are 5 points on the vloxes' bodies. In the encyclopedia, we also see certain patterns regarding which parts occur together within a word: *womm* and *ravv* occur together in *ravvish-womm, zuff* and *ravv* occur together in *zuffish-ravv*, etc. if we hypothesize that each word corresponds to one point in the pentagon, then perhaps these *ish* words correspond to in-between points (something like *greenish-yellow*). If this is so, we can figure out which points are neighbors by looking at the *ish* words. This gives us the following chain of neighbors (but we don't know yet which corresponds to which point): *womm—ravv—zuff—kibb—tezz*.



# (C) Vloxes (2/2) [Solution]

### Solution path (continued)

Looking at the descriptions, there are three ravv vloxes and two kibb vloxes. the only stripe direction represented three times is pointing toward the tail, so the three ravv vloxes must be E,F,G; and the only direction represented twice is pointed toward the head, so the two kibb vloxes must be A and H. With *ravv* and *kibb* sorted out, we can then identify the other points on the pentagon based on the chain we figured out from the text:



We are also asked for the kibbish-zuff vlox and the zuffish-kibb vlox. Based on what we've figured out about the pentagon, these should be between the top point (zuff) and the point to its right (kibb). We can infer that zuffish-kibb is closer to kibb, and that kibbish-zuff is closer to zuff. Therefore, the zuffish-kibb one is C, and the kibbish-zuff one is I. (We can figure out that zuffish-kibb is closer to kibb than zuff based on analogy to greenish-yellow). Note that participants in the contest did not lose any points for mixing up zuffish-kibb and kibbish-zuff.

The encyclopedia says "more mellovu makes no sense." The only attribute that cannot be compared is whether or not a horn is present. Mellovu could mean "having a horn" or "not having a horn", but since 2 vloxes have a horn while 7 do not, it must mean "having a horn." Therefore, the two mellovu vloxes are A and I.

This leaves *imxo* and *mellivu* to refer to size. There are two mellivu vloxes and two definitively small vloxes, so we can infer that *mellivu* = "small" (B and F). There is one imxo vlox, so we can infer that *imxo* = "large", such that the imxo vlox is I.

**A2.** The encyclopedia article says that vloxes are born completely qliqli and become less qliqli as they age. *Qliqli* means "having the legs completely unshaded," so the youngest vlox would be the one with the least-shaded legs—i.e., D. Its stripe points toward tezz but is slightly skewed toward womm, so it would be described as *wommish-tezz* (but note that participants in the contest were not penalized if they answered *tezzish-womm* instead of *wommish-tezz*).

