

Focus Standards and Claim

Claim 3  
4.OA.A

Stimulus

### Picking a Pet

Your class is trying to decide what type of animal to get for the class pet. Your teacher is letting the class vote to choose a goldfish, a turtle, or a hamster as the class pet.

All 20 students in your class voted for both their 1st choice and their 2nd choice for the class pet. The results are shown in Table 1.

**Table 1. Class Pet Votes**

Student	1st Choice	2nd Choice	Student	1st Choice	2nd Choice
1	Turtle	Hamster	11	Turtle	Hamster
2	Goldfish	Hamster	12	Turtle	Goldfish
3	Goldfish	Turtle	13	Hamster	Turtle
4	Hamster	Turtle	14	Hamster	Goldfish
5	Goldfish	Turtle	15	Turtle	Goldfish
6	Turtle	Goldfish	16	Goldfish	Turtle
7	Hamster	Goldfish	17	Turtle	Goldfish
8	Turtle	Goldfish	18	Turtle	Goldfish
9	Goldfish	Hamster	19	Turtle	Hamster
10	Goldfish	Hamster	20	Goldfish	Hamster

Item Prompt

Your classmate claims that there is **no** point system that could result in the goldfish winning. Do you agree or disagree with your classmate?

Use words and numbers to explain your reasoning.

## Sample Responses

Sample Response A	I would disagree because there is many ways the goldfish could win. For example, the turtle could have 3 1st choice votes and 3 2nd choice votes. The hamster could have 4 1st choice votes and 2 2nd choice votes. So, that would mean the goldfish would have 4 1st choice votes and 4 2nd choice votes. So, that would mean the goldfish would have 8 votes in all.
Sample Response B	I agree because I even multiplied bigger numbers compared to the turtle and the turtle still won same with the hamster turtle - 24 hamster - 20 goldfish - 21
Sample Response C	I disagree because when you count all the goldfish on both 1st and 2nd choice you should get 15 and that's the greatest out of turtle and hamster.
Sample Response D	I agree because 1st choice votes have to be more than the 2nd choices and the goldfish got less of the first votes which are key to winning.
Sample Response E	Disagree. If votes are equal worth first choice or second choice than goldfish wins. Even if votes are worth 5 or 10 or 1, equal for first and second choice than goldfish win. even if votes are 5 for first choice 4 for second choice goldfish gets $5 \times 7 = 35$ for first and $4 \times 8 = 32$ for second choce. $35 + 32 = 67$ for goldfish turtle gets $5 \times 9 = 45$ and $4 \times 5 = 20$ $45 + 20 = 65$ , less than 67 for goldfish

Sample  
Response F

I agree, because no matter how or what number times it, no matter whether it's 1st choice or 2nd choice, goldfish won't win.

$$9 \times 4 = 36 \text{ turtle}$$

$$7 \times 4 = 28 \text{ gf}$$

$$4 \times 4 = 16 \text{ hs}$$

Sample  
Response G

I disagree because technically The goldfish has more points on the second count.