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Quick Question

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3/4 points (graded)
For each of the decisions below, indicate if the decision variables would be binary, integer, or neither.

1) We have 20 students, and we want to assign them to one of two groups.

- (•) Binary ✔
- ( ) Integer
- ( ) Neither

2) The owner of 5 clothing stores needs to decide how many shirts, pants, and hats to send to each store, given historical sales data.

- ○ Binary
- ◉ Integer ✔
- ○ Neither

3) After try-outs, the coach of a basketball team needs to decide which people should make the team (15 people tried out).

- ○ Binary ✔
- ○ Integer
- ◉ Neither ✖

4) A fertilizer company is trying to decide how much (in grams) of three different compounds to add to each bag of fertilizer.

- ○ Binary
- ○ Integer
- ◉ Neither ✔

Explanation
The first and third decisions require binary decision variables, since they are both assignment problems. In the first case, we'll have a binary decision variable for each student (20 decision variables). In the third case, we'll have a binary decision variable for each person (15 decision variables).
The second decision requires integer decision variables, since the owner needs to

decide how many of each item to send to each store (15 decision variables). Since fractional items would not make sense, the decisions are integer.
The fourth decision does not need binary nor integer decision variables, because the amount in grams can be fractional.

Submit You have used 2 of 2 attempts

Answers are displayed within the problem

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