Bulkeley High School
ACCESS Lesson

Is the System Fair?
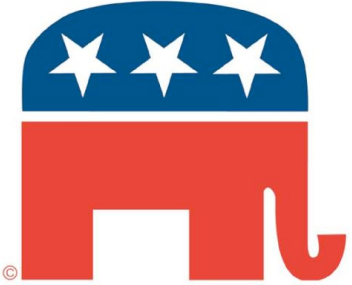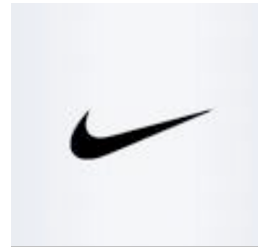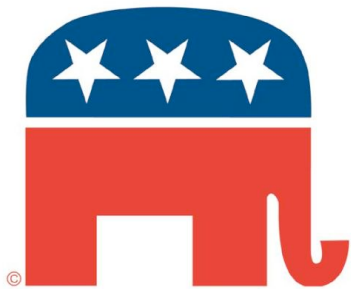
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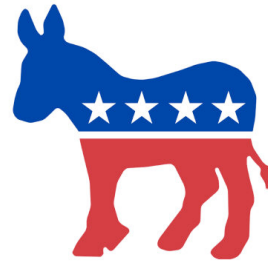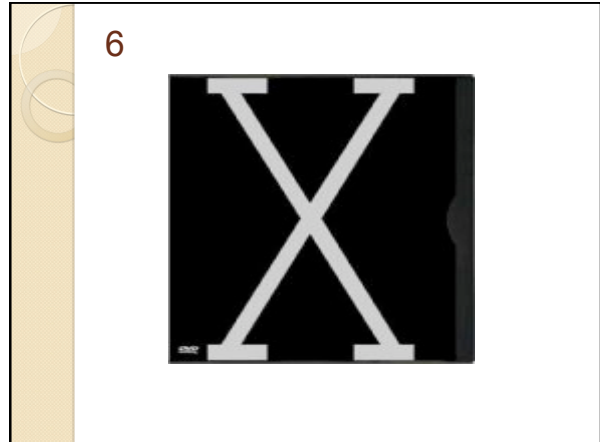Let's share our ideas!

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MALCOLM X
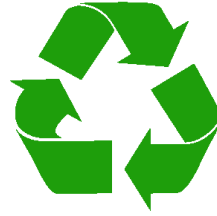
Is the System Fair?

The person who removes the last box WINS!!!

GAME 1:
• Two people playing against each other take turns removing 3 boxes from a pile of 18 boxes.

GAME 2:
• Two people playing against each other take turns removing 2 boxes from a pile of 18 boxes.

Is the System Fair?

For each game:
- Write an expression that represents the number of boxes left at the end of each turn
- REMEMBER:
  x is the number of boxes at the start of each turn
- Can you predict who will win the game?

Is the System Fair?

EXTENSION:
- Two people playing against each other take turns removing either 1, 2, or 3 boxes from a pile of 18 boxes.
- The person who removes the last box or boxes wins the game.
- Play the game several times, keeping track of who goes first, how many boxes are removed on each turn, and who wins.
- Extension: Play the same game, but, this time change the number of total boxes from 24 to another number.

In your journals, answer the question below.

Why do we use variables or symbols in Algebra?