

Mixed Fruit Salad

This is a hands-on problem. You have one minute to determine which team members will solve the problem.

JUDGE READS TO TEAM (after participants are determined):

You will have 7 minutes to complete this problem. You may talk or ask questions at any time; however, time continues. At the end of 7 minutes, your solution will be scored.

Your problem is to place as many pieces of fruit as possible in the square in front of you. You will be given materials to be used in your solution. No other materials may be used.

Each piece of fruit must be placed one at a time into the square. The fruit must be completely within the taped off area to count for score. The fruit that extends past the outside edge of the taped boundary will receive no score. The fruit may be removed after placement, but they must also be removed one at a time.

Score will be as follows:

Each Grape completely within the square will receive 2 points

Each Orange inside the square will receive 4 points

Each Banana inside the square will receive 6 points

If every piece of fruit is completely within the square, you will receive 20 additional points.

How well your team works together will receive 1-20 points.

Materials and Setup

Give each team the following materials.

1 sheet of newspaper

1 piece of yarn 12" in length

4 straws

3 spaghetti noodles

A 1" square of clay

1 sheet of construction paper

JUDGES ONLY:

On a hard surfaced floor or tabletop (I suggest a table top that can be cleaned up afterwards.), tape off a square for fruit placement to measure 7" x 7"

For Divisions 2 and 3 make the square to measure 5" x 5"

Give each team a bag or basket containing 20 grapes and 12 oranges and two bananas. (You may vary this for practice, depending on what you have available, of course). The bag or basket may NOT be used as part of the solution.

The team may use only the given materials for containing the fruit in the taped area.

When scoring, use a ruler placed on the outside edge of the taped boundary to determine whether a fruit is entirely within the boundary. Fruit outside the boundary will NOT count for score; however, a piece of fruit supported by one outside the boundary WILL count for score if that supported fruit is entirely within the square. The shape of the fruit may be altered but don't tell them this until after they have solved the problem.

After scoring is complete, eat the oranges for a snack as you talk about the solution to the problem. The remainder of the fruit may no longer be recognizable. Have Fun and be Spontaneous.