In this activity, the group will be split into several teams consisting of either all parents, or all students. Each team will have to construct a raft out of an 8x8 piece of construction paper. The raft that can hold the greatest number of pennies in or on it and stay afloat wins.

Materials:
- One 8x8 piece of construction paper.
- Several pennies (we will have these after the construction is complete)
- A bucket of water (the groups will be allowed to test to see if the raft floats by itself, but not with any weight)

Rules:
1. The only thing that can be used in the construction is the piece of construction paper.
2. No team can touch any other teams’ materials.
3. The team does not have to use the entire piece of construction paper, and they can rip it and do whatever they want to alter it.
4. Each team gets only one run with the pennies. During construction, the teams can place their rafts in the water but cannot place weight on them.

Directions:
1. Each team will be given a worksheet to work on. They have one minute to complete as many problems as possible. For each correct problem, they will earn one penny. Answering the bonus word problem at the end will earn one piece of tape.
2. After the worksheet, each team will be given eight minutes to construct their raft.
3. After the construction period is over, they bring their raft over to see how many pennies it will keep afloat.
4. The proctors (Fredonia State Students) will be the only ones allowed to place the pennies onto the rafts and will place them on, one at a time.
5. When the raft sinks, the maximum number of pennies the raft held will be the score of your team.
6. If there is a tie in the number of pennies held, the team that used the least amount of construction paper wins.
Will It Float Prep-Sheet

1. John and Mary are going fishing. If their boat is a perfect rectangle, and the length of the boat is 8 feet, and its width is 4 feet, what is the area of the boat?

2. Joshua is planting a rectangular garden on the side of his house. The side he is building on is ten feet wide. If he wants the garden to be twenty square feet, how far away from the house will the garden come?

3. If Sally has a canoe that’s has an area of 6 square feet, and Alvin has a paddle boat that has an area of 11 square feet and both are made of the same material, which will be able to hold more weight?
You have one minute.

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  5  9  2  3  4  4
×3  ×7  ×8  ×3  ×6  ×1
  9  8  2  5  4  1
×5  ×7  ×3  ×4  ×1  ×3
  8  7  1  9  4  3
×3  ×5  ×8  ×2  ×3  ×9
  6  4  6  2  3  5
×9  ×8  ×0  ×7  ×7  ×1
  1  2  4  6  2  7
×0  ×8  ×4  ×3  ×2  ×9
  1  1  5  0  3  8
×1  ×7  ×6  ×4  ×3  ×6
  9  3  6  7  5  6
×9  ×1  ×1  ×4  ×2  ×6
  7  5  3  7  9  5
×7  ×9  ×4  ×1  ×2  ×3
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**Bonus:** For a piece of tape

Keary wants to purchase the flat screen television with the biggest screen area. The dimensions of the screens available are 14 in. by 17 in., 13 in. by 18 in., and 15 in. by 15 in. Which TV has the largest viewing area?