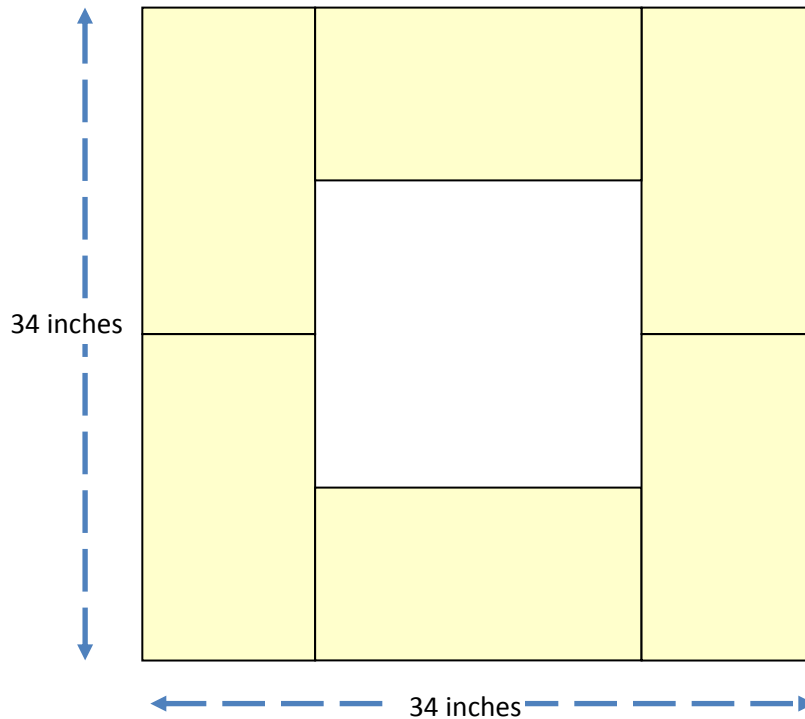


This activity was written by Candace Walkington.

## Ace of Math?

We just watched a video clip from the Food Network show “Ace of Cakes” where Duff and his gang are making a cake for the International Bridge, Tunnel, and Tollway Association. Below is the diagram shown in the video of the 6 sheet cakes being used to construct the base of the cake. Duff mentioned that this base has a length of 34 inches and a width of 34 inches. Duff wanted to figure out how many square feet of cake he’s using, and in the video we saw him do the calculations below.



Duff's Calculations:

$$17 + 17 = 34$$

$$~~34^2 = ?~~$$

$$34 \times 34 = ?$$

$$30 \times 30 = 900$$

$$4 \times 4 = 16$$

**916 sq. inches of cake**

**$916 \div 12 = \sim 8$  sq. feet of cake**

**On a big piece of paper, write some instructions for Duff that cover these three things:**

- (1) Explain any math mistakes Duff made in his reasoning, why they were wrong, and how he could have mentally made a more accurate calculation.
- (2) Using Duff's method of solving this problem, show him how he could have figured out the area of his cake.
- (3) Explain to Duff a *different* strategy he could have used to solve this problem.