

Name: \_\_\_\_\_



### Llama Super Challenge

Each day I give my pet llama a bath in the bathtub- he's a clean llama. It takes 8 gallons to wash the llama. On the first day the 8 gallons go right down the drain, but each day after that, because there's so much llama fur in the tub, only half as much water goes down the drain.

**For example:**

On the second day, only 4 gallons go down the drain, while 4 gallons are stuck in the tub.

On the third day, only 2 gallons go down the drain, while 6 more gallons are stuck in the tub.

If this pattern continues, how many days will it be before there is  $56 \frac{1}{32}$  gallons of water in the bathtub?