

MATH MAVENS' MYSTERIES

Name: _____

Date: _____

The Bell Clapper Caper

Detectives, am I glad you're here! An eerie hush has fallen over the small town of Point Logos. I noticed something strange this morning at 10 a.m. Instead of the usual cheerful chime of the town bell, there was only silence.

I ran to the town hall, where I discovered that someone had snatched the bell's clapper! Without the clapper that swings inside the bell, there is no way for it to ring. This could mean a big problem for the kids in town. The school doors are set to automatically open at the chime of the 3 p.m. bell. If the bell doesn't ring, no one will be able to leave school!

I already have a number one suspect: Silent Sam. Everybody knows that Sam likes things very, very quiet. He gets so fed up with noise that he even refuses to speak! For years, Sam has written to the local newspaper complaining about the town bell. Just last week, he threatened to put an end to its joyful sounds.

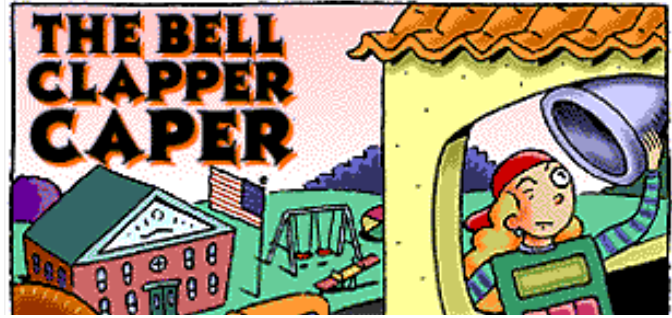
As luck would have it, I found Silent Sam leaving the Stay Fit Gym. (Silent Sam swims in the gym's pool almost every day. He must like the peace and quiet of swimming underwater.)

"Sam," I said. "May I ask you a few questions about the town bell's clapper?"

Sam quickly shoved something into the pocket of his gym bag.

I knew he was up to something, so I reached into the pocket and discovered a locker key. "Sam, did you hide the bell clapper in a gym locker?"

Sam knew he was caught. He looked down at the ground and slowly nodded "yes."



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"What's the number of the locker where we can find the bell?"

Suddenly, a sly smile crossed Sam's face and he held up five fingers.

Oh no, I thought. This must be one of Sam's games. Sam was only going to answer five questions to help me figure out the locker number. Plus, he could only answer "yes" or "no"!

I decided to play along. "All right, Sam, but I warn you — no funny business! Here's my first question: Is the number less than 50?"

Sam nodded "yes."

"Is the number less than or equal to 25?"

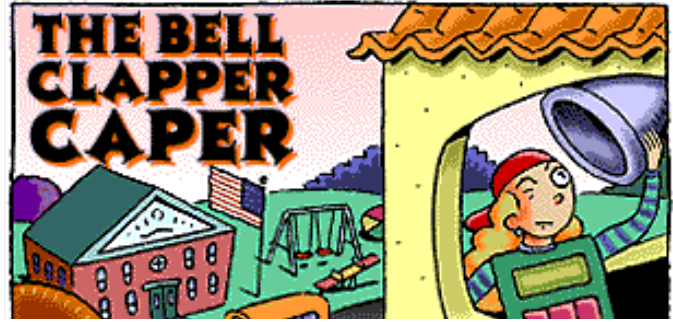
This time, Silent Sam shook his head "no."

"Is the number odd?"

Sam was getting a little nervous. He quickly nodded "yes."

"Is the number a multiple of 5?"

Again, Sam nodded "yes." I could tell he was beginning to panic.



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Solve the Mystery!

This is where I need your help, Super Sleuths. One more question will solve this caper. We don't have much time — we've got to get that bell ringing by 3 p.m.! What is the next question I should ask Silent Sam that would solve the secret locker number without a doubt? (Remember, he might answer "no"!)

Write down your question in the space below:

Use this space to show your work: