

# MATH MAVEN'S MYSTERIES

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

Date: \_\_\_\_\_

## The Case of the Skating Bus Driver

Detectives, I'm glad you're here. This morning, the town bus driver, Suzie Skatemore, never showed up to work. No one could get anywhere, and the town of Point Logos came to a grinding halt!

I knew just where to find Suzie, so I headed straight for the Skate Palace. You see, Suzie loves to roller-skate more than anything in the world, and last night the new super-high-powered "Rocket Skates" were shipped to the Skate Palace. I was sure Suzie had been waiting there all night for her chance to try them out.

When I walked into the Skate Palace, all I could see of Suzie was a blur of wheels and a giant grin zooming around and around the rink. I waited for her to whiz by me and yelled, "Suzie, the town needs you! You have to come back and drive the bus!"

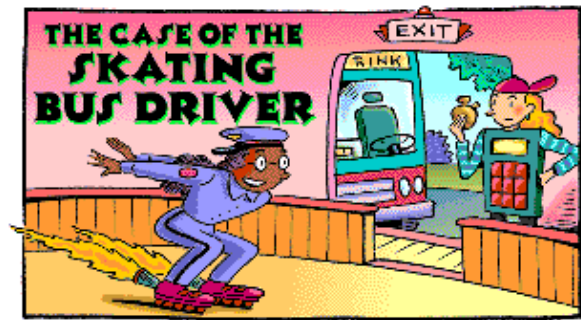
"Sorry, Math Maven, I couldn't help myself," she yelled as she sped by me again. On her next time around, she called, "I just had to try these new rocket skates!" As she whipped by me again, she shouted, "I'll be back on my bus route as soon as my skate rental time is up!"

"But, Suzie!" I called, trying to reason with her. "What about the people of Point Logos?"

"Maybe you could take over my bus route until I'm done!" she shouted hopefully, still grinning away.

Super sleuths, I'm a busy math detective, but Suzie looked so happy zooming around on those high-powered rocket skates I just couldn't say no. "What time should I come back?" I asked.

"I'm not sure, Math Maven. You'll have to figure that out!" she shouted as she went into her next turn.



Notes:

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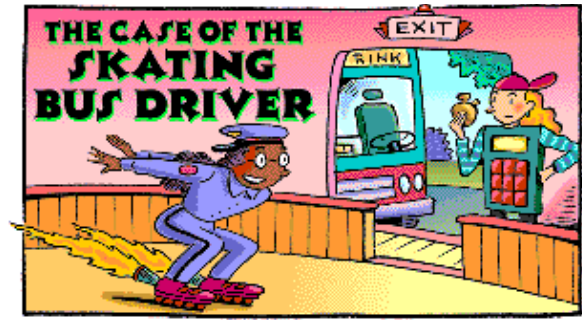
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"How long has she been skating?" I asked the skating attendant.

"Since our doors opened at 10:00 this morning," the attendant replied. "She ran in, paid \$30, and was on the rink in seconds!"

I noticed a sign on the wall behind the attendant: "Skate Rental: \$3 an hour. Additional fee for Rocket Skates: \$15."



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## Solve the Mystery!

Detectives, I can't stay at the Skate Palace all day, I've got to drive the bus. And frankly, I'm getting a little dizzy watching Suzie go around and around the rink. I need your help figuring out what time I should come back to the Skate Palace and return the bus to Suzie Skatemoore.

First, to figure out how many hours Suzie will be allowed skate, I'm going to set up a missing-element equation. The missing element is the information that I need to find out. In this case, it's the time, or total number of hours Suzie rented the skates. Use the letter  $t$  in the equation to stand for time.

What equation should I use to figure out when Suzie will be done skating?:

- A.  $3 + 5t = 30$
- B.  $30 \times 3 - 15 = t$
- C.  $3t + 15 = 30$
- D.  $30t - 15 = 3$

Use this space to show your work: