## Instant vs. Average Speed Activity

Length of room:

Times (average):

## Instant vs. Average Speed Activity

INSTANT SPEED:
Speed at any given time
What your speedometer would read in your car


During the previous activity...,
were the average speed and the instant speed equal at any time?

## Instant vs. Average Speed

1) Pat gets his first progress report. He starts from rest and accelerates to $20 \mathrm{~km} / \mathrm{hr}$ towards the window. What's Pat's average speed?

Compare Pat's average speed to his instant speed.

1a. Instant and average velocity.notebook
2) Chris accelerates uniformly from $15 \mathrm{~m} / \mathrm{s} E$ to $27 \mathrm{~m} / \mathrm{s} E$ in 3 seconds. What's Chris' average velocity?
3) Jeremy accelerates from rest to $10 \mathrm{~m} / \mathrm{s}$ in 2 seconds.
a) What is Jeremy's average velocity
b) What is Jeremy's distance after 2 seconds?

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1) For uniform motion, instant velocity is about the same as average velocity True

False
2) Is this also the case for non-uniform motion?

Yes
No
3) Vasyl's donkey walks 40 m east at $10 \mathrm{~m} / \mathrm{s}$, and 40 m west at $20 \mathrm{~m} / \mathrm{s}$. What is his average velocity? (Careful! It is NOT $15 \mathrm{~m} / \mathrm{s}$ )

