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## Energy of the Ride <br> GRADES 6-8

## Explore

What percent of the Denise Mueller-Korenek ( $183 \mathrm{MPH} / 82$ meters/second) was your fastest ride? Example: If you rode at $10 \mathrm{M} / \mathrm{S} / 82 \mathrm{M} / \mathrm{S}=.12$ or $12 \%$. Your fastest ride was only $12 \%$ as fast as Denise Mueller-Korenck's ride.

## Elaborate

| Ride: 30 meters |  |  |  |
| :---: | :--- | :--- | :--- |
| Mass of the bike: <br> 14 kg | Time <br> (seconds) | Velocity <br> (meters/second) | Kinetic Energy <br> (Joules) |
| Student 1 | answer here | answer here | answer here |
| Student 2 | answer here | answer here | answer here |
| Student 3 | answer here | answer here | answer here |
| Student 4 | answer here | answer here | answer here |

Graph the kinetic energy vs. your velocity for each ride from slowest to fastest


Velocity
$\qquad$
$\qquad$

## Energy of the Ride

GRADES 6-8

## Evaluate

Based on your data/graph, explain the relationship between velocity and kinetic energy by making a claim about the relationship. Support your claim with evidence and reasoning.

Claim: What is the relationship between velocity and kinetic energy?
answer here

Evidence: Record and reference in words any data that supports your claim.
answer here

Reasoning: Explain why your claim is supported by evidence and scientific ideas. Use the kinetic energy formula to support you.
answer here

