### 8.2.I Quiz Review

Which roller coaster has MORE kinetic energy and WHY???

| STATISTICS | WICKED | CANNIBAL |
| :--- | :--- | :--- |
| Vertical Height (m) | $34(110 \mathrm{ft})$ | $63(208 \mathrm{ft})$ |
| Speed (km/hr) | $89(55 \mathrm{~m} / \mathrm{hr})$ | $110(70 \mathrm{~m} / \mathrm{hr})$ |
| Capacity (riders/train) | 8 | 12 |

Which skater has MORE kinetic energy and WHY???
What could the skaters do to INCREASE their kinetic energy?

|  |  |
| :--- | :--- |
| TONY HAWK | RODNEY MULLEN |
| Height: 6 ft 3 in $(1.91 \mathrm{~m})$ | Height: $5 \mathrm{ft} 11 \mathrm{in}(1.81 \mathrm{~m})$ |
| Nickname(s): The Birdman | Nickname(s): Mutt, King |
| Turned pro: 1982 | Turned pro: 1980 |
| Weight: $171 \mathrm{lb}(78 \mathrm{~kg})$ | Weight: $161 \mathrm{lb}(73 \mathrm{~kg})$ |
| Specialty: Tricks, especially spins | Specialty: Tricks, especially flips |

What happens to the kinetic energy when the mass increases?


Define KINETIC ENERGY:

Which has the MOST kinetic energy? And WHY???

- A car going 50 mph
- A semi- truck going 50 mph
- A motorcycle going 50 mph
- A cheetah running 50 mph

Which has the MOST kinetic energy? And WHY???

- A rabbit running 5 mph
- A dog running 5 mph
- An elephant running 5 mph
- A cat running 5 mph

Which has the MOST kinetic energy? And WHY???

- A person hiking 2 mph
- A person walking 3 mph
- A person running 8 mph
- A person walking 4 mph

Which has the MOST kinetic energy?

- A soccer ball rolling down the hill 8 mph
- A baseball rolling down the hill 8 mph
- A tennis ball rolling down the hill 8 mph
- A bowling ball rolling down the hill 8 mph

