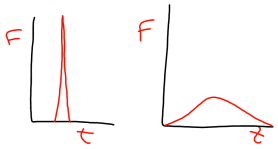
Cycle 24 Impulse & Collisions

Impulse = Ft

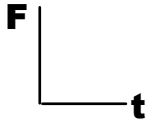
name: _____



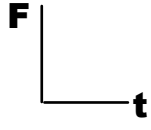
In each situation, sketch which Force vs Time graph it would have.

1. I bend my knees when I jump down off of a chair.

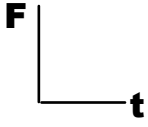
2. I caught a fast ball without a glove.



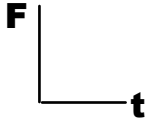
3.The front ends of old cars when crashing.



4.The front ends of new cars when crashing.



5. An experienced stunt person takes a fall.



6. Someone faints and falls down.

7. Why do you bend your knees when landing from a jump? The average person on the street will say something like, "Your knees absorb the force" or "You give with it." What is the real explanation?

8. a) Write the equation for Impulse.

b) What happens to the force if the time of impact is tripled?

c) Why is the equation difficult to use?

d) How is Impulse represented on a Force vs Time graph?

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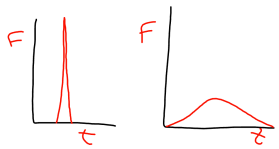

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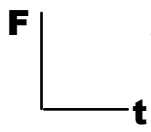

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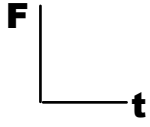

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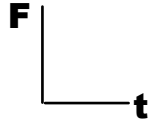

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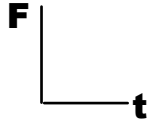

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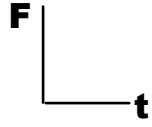

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