Name: Period:

Honors and Conceptual Physics: HW: Momentum II

Find and fill in the missing values in the chart below.

p₁	p₂	Δp (impulse)	Impact Force	time
1 kg•m/s	2 kg•m/s		1 N	
1 kg•m/s	-2 kg•m/s		-1 N	
5 kg•m/s		+ 3 N•s		1 s
- 10 kg•m/s		- 5 N•s		10 s
	5 kg•m/s	+ 12 N•s	3 N	
2 kg•m/s		-2 N•s		4 s
2 kg•m/s			6 N	3 s
	0 kg•m/s		- 100 N	1/10 s

			6 N	3 s
2 kg•m/s				
	0 kg•m/s		- 100 N	1/10 s

1. If you increase the time for which a force is applied, is the impulse increased or decreased? This is not a collision.

2. In terms of impulse and momentum, why are air bags in automobiles a good idea? **Explain thoroughly.**

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