

Date: _____

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Total Score:

/ 15

GIG HARBOR HIGH SCHOOL - PHYSICS S2: 2(A), 3(A), 5(A)

Terms, Formulae & Units Of Measure

INSTRUCTIONS: Impulse and Momentum pretty much *demand* that you understand the units of measure and formulae. Let's see how you're doing with those.

QUESTION 1

/1

Momentum is the same as kinetic energy

A ☐ True

B ☐ False



QUESTION 2

/1

Please type in the equation that BEST represents the Law of Conservation of Momentum (**Hint:** You **MUST** use subscripts/superscripts. That means you **cannot use** the ^ key)

QUESTION 3

/1

The unit(s) of measure for momentum is/are:

- | | | | | | | | |
|---|---|---|----|---|---|---|--------|
| 1 | p | 2 | mv | 3 | J | 4 | kg m/s |
|---|---|---|----|---|---|---|--------|

QUESTION 4

/1

The unit(s) of measure for impulse is/are:

- | | | | | | | | |
|---|---|---|----|---|---|---|--------|
| 1 | p | 2 | mv | 3 | J | 4 | kg m/s |
|---|---|---|----|---|---|---|--------|

QUESTION 5

/1

Impulse and momentum are EXACTLY the same thing.

A ☐ True

B ☐ False



QUESTION 6

/1

The symbol that we use to represent momentum is:

- | | | | | | | | |
|---|---|---|----|---|---|---|--------|
| 1 | p | 2 | mv | 3 | J | 4 | kg m/s |
|---|---|---|----|---|---|---|--------|

QUESTION 7

/1

The symbol that we use to represent impulse is:

- | | |
|---|---|
| 1 | p |
|---|---|
- | | |
|---|----|
| 2 | mv |
|---|----|
- | | |
|---|---|
| 3 | J |
|---|---|
- | | |
|---|--------|
| 4 | kg m/s |
|---|--------|

QUESTION 8

 /1

Which of the following is NOT a formula that we can use to calculate impulse:

- | | |
|---|----|
| 1 | mv |
|---|----|
- | | |
|---|---|
| 2 | F |
|---|---|
- | | |
|---|--|
| 3 | |
|---|--|
- | | |
|---|-------------|
| 4 | $p_f - p_i$ |
|---|-------------|

QUESTION 9

 /1

Let's say it takes some sort of super-being .100 seconds to bring some object to a stop by exerting 1.00×10^6 N of force on that object. How much time would it take a dog exerting 10.0 N of force to bring that same object to a stop?

- 1 1.00×10^2 seconds
- 2 1.00×10^3 seconds
- 3 1.00×10^4 seconds
- 4 1.00×10^5 seconds

QUESTION 10

/1

When two objects collide and rebound *without* a loss of kinetic energy we say that collision is:

1

Choose one option for each blank section

1 inelastic

1 elastic

1 perfectly elastic

1 perfectly inelastic

QUESTION 11

/1

Which of the following is NOT a formula that we can use to calculate impulse:

1 F

2

3

4 $f=ma$

QUESTION 12

/1

Impulse and momentum have EXACTLY the same units of measure.

A ☐ True

B ☐ False



QUESTION 13

/1

When two objects collide and stick together with a loss of kinetic energy we say that collision is:

1	
---	--



Choose one option for each blank section

1	inelastic
---	-----------

1	elastic
---	---------

1	perfectly elastic
---	-------------------

1	perfectly inelastic
---	---------------------

QUESTION 14

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 /2

A fly smacks into the windshield of a fully loaded school bus. Please type in ONLY THE FINAL portion of the equation that represents such a collision if kinetic energy is lost in that collision. (Hint: You **MUST** use subscripts/superscripts. That means you **cannot use** the ^ key)
