Worksheet: Day 1

Test in DAY 1 - IN CLASS

2 FEB

STATUS

1 ***Please note that you must finish this assignment before you leave today in order to receive full credit for attendance.***

Please use the following equation sheet for reference:

Test1Equationsheet.pdf (https://assethub.fso.fullsail.edu/assethub/Test1Equationsheet_426ce67a-3564-4078-b8d4-ed93a5a765d5.pdf)

Select "Yes." below.

0 Points

- (•) Yes.
- ( ) Do not select this one.

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2 Which of the following is **not** an example of a scalar quantity?

4 Points

- ( ) Time
- ( ) Length
- ( ) Speed
- (•) Acceleration
- ( ) Mass

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3 A car is stopped at a red light. When the light turns green, the car accelerates at a rate of 3.5 m/s^2. What is the final velocity of the car after 6 seconds?

4 Points

- ( ) 0.88 m/s
- ( ) 1.24 m/s
- ( ) 95 m/s
- (•) 21 m/s

4 A car travels down the road with a net force of 0 N. This is an example of:

4 Points

- acceleration.
- static equilibrium.
- dynamic equilibrium.
- weight.

5 An object is accelerated at 2 m/s^2 creating a force of 190 N. What is the mass of the object

4 Points

- 350 kg
- 15.43 kg
- 9.78 kg
- 95 kg

6 What distance does a man travel who runs at a velocity of 6.5 m/s for a time of 72 s?

4 Points

- 0.75 m
- 21.11 m
- 400 m
- 468 m

7 What is the acceleration of a tractor moving at a constant velocity of 12 m/s for a time of 10 s. *All answers are measured in* m/s^2.

4 Points

- 0
- -10
- -100
- 1

8 What is the weight of a box on Earth with a mass of 32 kg?

4 Points

- 5 N
- 33.6 N
- 300 N
- 313.6 N

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9 Which mass has the most **inertia**: a 42-kg mass, a 34-kg mass, a 72-kg mass, or a 93-kg mass?

4 Points

- 42-kg mass
- 34-kg mass
- 72-kg mass
- 93-kg mass

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10 Which of the following is **not** an example of a vector quantity?

4 Points

- Force
- Time
- Velocity
- Acceleration
- Momentum

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11 When does free fall occur?

4 Points

- When there is no velocity.
- When there is no air resistance.
- When there is no mass.
- When there is equilibrium.

12

A man drops a penny off of a skyscraper. Assuming the penny is in free fall, what distance will it fall in a time of 3 seconds?

4 Points

- (•) 44.1 m
- ( ) 35.4 m
- ( ) 19.7 m
- ( ) 73.2 m

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13 What is the force of an object with a mass of 19 kg that is accelerated at 22.3 m/s^2

4 Points

- ( ) 0.07 N
- ( ) 500 N
- ( ) 0.33 N
- (•) 423.7 N

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14 What is the relationship between time and acceleration?

4 Points

- ( ) Time is directly proportional to acceleartion.
- (•) Time is inversely proportional to acceleration.
- ( ) There is no relationship between time and acceleration.

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15 What happens to the amount of distance you travel if you go twice as fast in the same amount of time?

4 Points

- (•) You go twice as far.
- ( ) You go half as far.
- ( ) You go the same distance.

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16 Two people play tug of war. One man pulls to the left with a force of 340 N and the other man pulls to the right with a force of 651 N. What is the net force on the rope?

4 Points

- [x] 311 N to the right
- [ ] 1090 N to the left
- [ ] 0.5 N to the right
- [ ] 650 N to the left

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17 What is the acceleration of a man who slows from an initial velocity of 9 m/s to rest in a time of 3.6 s? *All answers are measured in m/s^2*

4 Points

- [ ] -3.5
- [ ] 4.9
- [ ] 49.7
- [x] -2.5

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18 What is the mass of an object that has an acceleration of 4.7 m/s^2 and a force of 63.92 N being applied to it

4 Points

- [x] 13.6 kg
- [ ] 200 kg
- [ ] 0.97 kg
- [ ] 35 kg

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19 What is the acceleration of a man who goes from an initial velocity of 6 m/s to a final velocity of 23 m/s in a time of 8.5 s? *All answers are measured in m/s^2*

4 Points

- [x] 2
- [ ] 7.4
- [ ] 9.7
- [ ] 28

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20 A rock falls from a cliff. Assuming that the rock is in free fall, what distance does it fall if it hits the ground after a time of 4 s?

4 Points

- 235 m
- 36 m
- 78.4 m
- 4.6 m

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21 What is the mass of an object that has a weight of 462.56 N?

4 Points

- 0.01 kg
- 47.2 kg
- 465.44 kg
- 4000.33 kg

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22 A woman is rearranging her office. If she pushes her desk, which has a mass of 42 kg, using a force of 29.4 N, what is the acceleration of the desk? *All answers are measured in* m/s^2

4 Points

- 0.7
- 1.95
- 234.9
- 0.085

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23 What is the velocity of a man who runs a distance of 223.2 m in a time of 31 s?

4 Points

- 7050.1 m/s
- 7.2 m/s
- 0.088 m/s
- 8.48 m/s

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24 The downward force of an object is called:

4 Points

- (•) weight.
- ( ) acceleration.
- ( ) net force.
- ( ) mass.

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25 When does any object reach terminal velocity?

4 Points

- ( ) When the acceleration reaches a magnitude of 9.8.
- ( ) When any object has fallen 1 meter.
- ( ) When the mass decreases to zero.
- (•) When the force of air resistance pushing up equals the weight pushing down.

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26 Two kids are moving a heavy box. One kid pushes with a force of 27 N and the other kid helps with a force of 35 N. What is the magnitude of the net force on the box?

4 Points

- (•) 62 N
- ( ) 82 N
- ( ) 7.3 N
- ( ) 95 N

Submit

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