

QUIZ / Mechanics - Force

NAME

DATE

CLASS PERIOD

Put a check in the next to the correct answer.

1. Which response best defines a force?
 - A motion
 - A momentum
 - A type of work
 - Conservation of energy
 - An expense of energy
2. Given a gravitational constant of 9.81 m/s^2 , a robot with a mass of 50 kg has a weight of what?
 - 490.5 N
 - 510.3 N
 - 510.3 lb
 - 495 N
 - 485.6 N
3. Given a gravitational constant of 32.2 ft/s^2 , a robot that weighs 644 lb has a mass of what?
 - 20 slugs
 - 22 slugs
 - 22 kg
 - 200 slugs
 - 20 kg
4. The coefficient of static friction between a plastic block and a wood table top is $\mu_s=0.3$. The normal force exerted by the table on the block is 20 lb. If motion is emanate, what is the force of friction?
 - 6 lb
 - 8 lb
 - 8 N
 - 0.6 lb
 - 0.6 slugs
5. Friction is caused by ...
 - Rough surfaces
 - Atomic bonds
 - Both of the above
 - None of the above
 - Motion

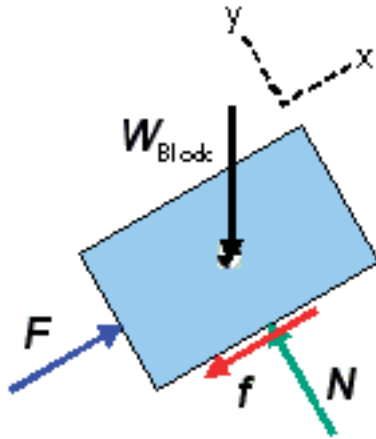
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6. A spring has an unstretched length of 1 foot, and has a spring constant of 0.6 lb/ft. It is stretched to a foot and a half. At this instant, what is the spring force, to the nearest tenth?
- 0.3 lb
 - 6 lb
 - 6 N
 - 1.6 lb
 - 1.6 slugs
7. Of these groupings of quantities, which group is entirely comprised of non forces?
- Mass, gravity, friction
 - Friction, spring constant, normal
 - 32.2 ft/s^2 , mass, friction
 - 32.2 ft/s^2 , mass, spring constant
 - Gravity, 32.2 ft/s^2 , mass
8. In the free-body diagram (FBD) shown, the force N represents what kind of force?



- Reaction force
 - Weight force
 - Friction force
 - Mass force
 - Spring force
9. Which of the following represents a unit of force?
- Slugs
 - Foot•pounds (ft•lb)
 - Feet / second•(ft/s)
 - Newtons
 - Fathoms

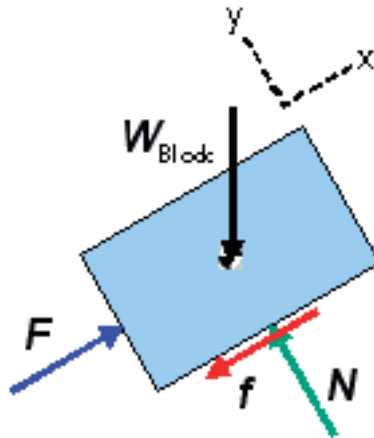
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10. In the free-body diagram (FBD) shown, the force f represents what kind of force?



- Reaction force
- Weight force
- Friction force
- Spring force
- Mass force