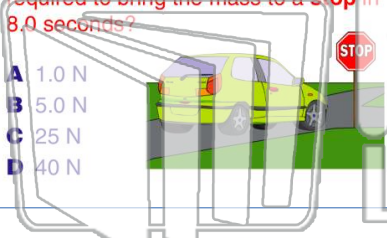Name_____ Class_____ Date_____

1 A 40-kilogram mass is moving across a horizontal surface at 5.0 meters per second. What is the magnitude of the **net force** required to bring the mass to a **stop** in 8.0 seconds?

A 1.0 N
B 5.0 N
C 25 N
D 40 N

2 A student does 60 joules of work pushing a 3.0-kilogram box up the full length of a ramp that is 5.0 meters long. What is the **magnitude of the force** applied to the box to do this work?

A 20. N
B 15 N
C 12 N
D 4.0 N

3 A boat weighing **9.0 × 10² newtons** requires a horizontal force of **6.0 × 10² newtons** to move it across the water at **1.5 × 10¹ meters per second**. The boat's engine

4 A high school physics student is sitting in a seat reading this question. The magnitude of the **force** with which the seat is **pushing up** on the student to support him is closest to
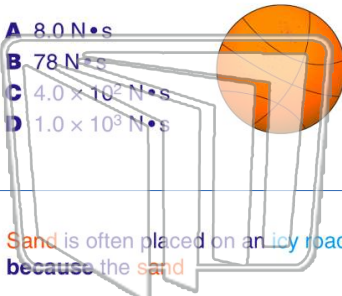
5

7 What was the **magnitude of the impulse** that the student exerted on the ball?

A 8.0 N•s
B 78 N•s
C 4.0 × 10² N•s
D 1.0 × 10³ N•s

stroller by the man, the magnitude of the **force** exerted on the man by the stroller is

A zero
B smaller, but greater than zero
C larger
D the same

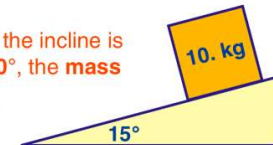**9** Sand is often placed on an icy road **because** the sand

A decreases the coefficient of friction between the tires of a car and the road
B increases the coefficient of friction between the tires of a car and the road
C decreases the gravitational force on a car
D increases the normal force of a car on the road

10 In the diagram below, a 10-kilogram block is at rest on a plane inclined at 15° to the horizontal.

As the angle of the incline is **increased** to **30°**, the **mass** of the block will
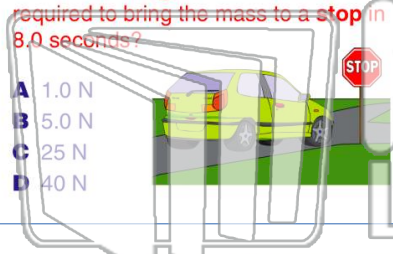
A decrease
B increase
C remain the same

Name_____ Class_____ Date_____

1 A 40-kilogram mass is moving across a horizontal surface at 5.0 meters per second. **What is the magnitude of the net force** required to bring the mass to a **stop** in 8.0 seconds?

A 1.0 N
B 5.0 N
C 25 N
D 40 N

○ C

2 A student does 60 joules of work pushing a 3.0-kilogram box up the full length of a ramp that is 5.0 meters long. What is the **magnitude of the force** applied to the box to do this work?

A 20. N
B 15 N
C 12 N
D 4.0 N

○ C

3 A boat weighing 9.0×10^2 **newtons** requires a horizontal force of 6.0×10^2 **newtons** to move it across the water at 1.5×10^1 **meters per second**. The boat's engine

4 A high school physics student is sitting in a seat reading this question. The magnitude of the **force** with which the seat is **pushing up** on the student to support him is closest to
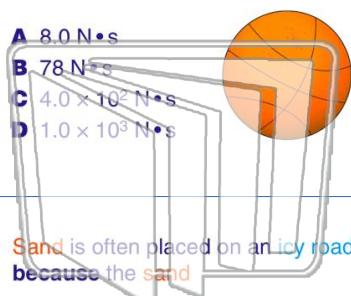
○ C

5

PREVIEW

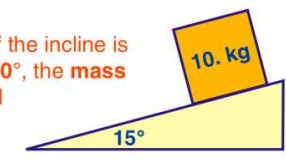Please Sign In or Sign Up to download the printable version of this worksheet

○ B

7 What was the **magnitude of the impulse** that the student exerted on the ball?

A 8.0 N•s
B 78 N•s
C 4.0×10^2 N•s
D 1.0×10^3 N•s

○ A

stroller by the man, the magnitude of the **force** exerted on the man by the stroller is

A zero
B smaller, but greater than zero
C larger
D the same

○ D

9 Sand is often placed on an icy road **because** the sand

A decreases the coefficient of friction between the tires of a car and the road
B increases the coefficient of friction between the tires of a car and the road
C decreases the gravitational force on a car
D increases the normal force of a car on the road

○ B

10 In the diagram below, a 10-kilogram block is at rest on a plane inclined at 15° to the horizontal.

As the angle of the incline is **increased** to **30°**, the **mass** of the block will

A decrease
B increase
C remain the same

○ C