

**Applications of Newton's Laws**  
**Formative Assessment**

Name \_\_\_\_\_  
Date \_\_\_\_\_ Block \_\_\_\_\_

*Answer completely in the space provided. You may do any work on the back.*

1. How much friction is opposing the constant motion of a box being pulled with 300 N of force?
2. What causes you to push against the passenger door of the car when the car makes a left sharp left turn?
3. The amount of force needed overcome friction and get a block of wood moving is \_\_\_\_\_ than the force needed to overcome friction to keep it sliding.
4. How much net force is acting on a falling object that has reached terminal velocity?
5. When do you exert more pressure on the ground: when you stand on two feet or balance on one foot.
6. How many Newtons does Anna's 40 kg poodle weigh?  $g = 10 \text{ m/s}^2$
7. John and Patrick are riding on a merry-go-round. John is near the center and Patrick is on the outer edge. Who has the greater linear speed?
8. What is the name of the force that holds any object in circular motion?
9. A 45 N box has a surface area of  $10 \text{ cm}^2$ . What pressure does it exert on the floor?
10. What two factors determine the amount of gravitational force an object experiences?
11. What two factors affect the amount of air resistance pushing up against a falling object?
12. Draw a free body diagram of a couch being pushed forward with a constant velocity. Label all four forces acting on the couch.

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Circle the questions you answered incorrectly. Remove this strip and turn in to your teacher.

C5

Friction	Pressure	Circle	Terminal	Gravity
<b>1</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>6</b>
<b>3</b>	<b>9</b>	<b>7</b>	<b>11</b>	<b>10</b>
<b>12</b>		<b>8</b>		

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