

FORCES and ACCELERATION

Matching (you will need to use some terms more than once)

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| ___ 1. A force is ___ | a. the tendency of an object to resist a change in motion. |
| ___ 2. The sum of all the forces acting on an object. | b. balanced forces |
| ___ 3. The sum of all the forces acting on an object is zero. | c. direction |
| ___ 4. If several people push on a large bolder and it begins to move then forces are ___ | d. a push or pull |
| ___ 5. Inertia | e. net force |
| ___ 6. Velocity can change when speed or ___ | f. unbalanced forces |
| ___ 7. Even if an object is traveling at constant speed its velocity can change if its ___ changes. | g. mass |
| ___ 8. The amount of inertia an object has depends on its ___ | |

Pick the word(s) that correctly complete the statement.

9. Newton's first law of motions says, "An object at rest **will will not** stay at rest unless acted upon by a(n) **balanced unbalanced force**. An object in motion **will will not** stay in motion unless acted upon by a **balanced unbalanced** force.
10. A racecar driving 200 km/hr. around an oval racetrack **is is not** accelerating, because its direction **is is not** changing.
11. If you pushed on the side of a toy truck that is rolling along the floor would the motion of the truck change? **Yes No** This is because the push is a(n) **balanced force unbalanced force**. **Balanced unbalanced** forces cause a change in motion.