- 1. What is force?
- 2. Name and *describe* the four elementary forces.

## 3. What is weight?

- 4. The \_\_\_\_\_\_ is the unit of weight used in the English system of measurement.
  - a) newton b) pound c) meter d) kilogram
- 5. One pound is equal to \_\_\_\_\_ newtons.
- 6. The \_\_\_\_\_\_ is the metric unit of force, and is a smaller unit than the \_\_\_\_\_\_.
- 7. One kilogram of mass has a weight of *about* \_\_\_\_\_\_ newtons.
  - a) 5 b) 20 c) 10 d) 4.48
- Force can be represented as a vector, with size and direction. The direction can be
  \_\_\_\_\_\_ or negative.
- 9. If opposite values (one is positive and the other is negative) are assigned to two different vectors, it means that the vectors are \_\_\_\_\_\_ in direction.
  - a) the same b) ninety degrees different c) opposite
- 10. What does it mean when we say a vector is "scaled?"
- 11. Name and describe two ways that objects can affect each other through forces.

12. Copy the table that compares the different types of forces.

13. Sketch a picture showing the difference between tensional, extensional, and compression forces.

14. At Earth's surface, \_\_\_\_\_\_ exerts a force of 9.8 newtons on every kilogram of mass.

a) gravity b) mass c) friction d) weak force

15. Copy the table that shows different forms of the "Weight" formula in your text.