

Name \_\_\_\_\_

Date \_\_\_\_\_

Use with textbook pages 276–285.

## What is a force?

### Vocabulary

action-at-a-distance	magnetic
balanced	mass
can	newtons
contact	static electricity
elastic	tension
force	unbalanced
friction	volume
grams	weight
gravitation	will not

Use the terms in the vocabulary box to fill in the blanks. Each term may be used only once. You will not need to use all the terms.

1. A(n) \_\_\_\_\_ is a push or a pull that acts on an object.
2. \_\_\_\_\_ forces only have an effect on objects that they touch.  
\_\_\_\_\_ forces act on an object without touching it.
3. \_\_\_\_\_ works to slow down or stop motion due to surfaces rubbing against each other. \_\_\_\_\_ force is experienced by a rope when it is pulled at either end. \_\_\_\_\_ force is exerted when a spring returns to its normal shape.
4. A(n) \_\_\_\_\_ force pulls objects toward each other.  
A(n) \_\_\_\_\_ force pulls or pushes on metals such as iron.  
\_\_\_\_\_ causes pushing and pulling forces.
5. Force is measured in units called \_\_\_\_\_.
6. The \_\_\_\_\_ of an object measures the amount of matter in it.  
The \_\_\_\_\_ of an object measures how strongly gravity pulls on that amount of matter.
7. \_\_\_\_\_ forces are forces that are equal in size and act in opposite directions.
8. \_\_\_\_\_ forces are not equal in size. They do not have to act in opposite directions.

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## Name the force

On the first blank line, state what type of force is illustrated in the picture.

Choose from the following list: tension, friction, elastic, gravitational, static electricity, magnetic.

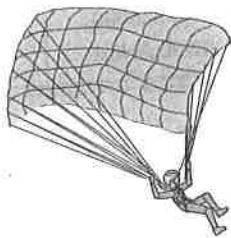
On the second blank line, state whether it is a contact force or an action-at-a-distance force.

1.



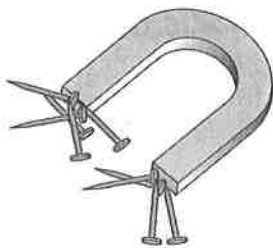
The trampoline stretches.

2.



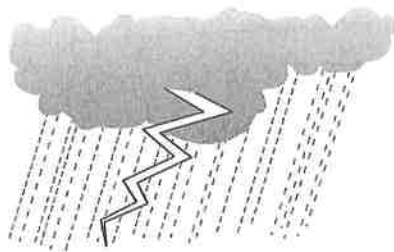
A person parachutes from the sky.

3.



A magnet collects the iron nails.

4.



A rain cloud produces lightning.

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## True or false?

Read the statements given below. If the statement is true, write “T” on the line in front of the statement. If it is false, write “F” and rewrite the statement to make it true.

1. \_\_\_\_\_ A force cannot set a motionless object in motion.

\_\_\_\_\_

2. \_\_\_\_\_ A force can make a moving object change direction.

\_\_\_\_\_

3. \_\_\_\_\_ A force can change the shape of an object.

\_\_\_\_\_

4. \_\_\_\_\_ Tension force slows down or stops motion due to surfaces rubbing against each other.

\_\_\_\_\_

5. \_\_\_\_\_ Elastic force pulls objects toward each other.

\_\_\_\_\_

6. \_\_\_\_\_ An example of magnetic force is lightning.

\_\_\_\_\_

7. \_\_\_\_\_ The weight of an object measures how strongly friction pulls on that amount of matter.

\_\_\_\_\_

8. \_\_\_\_\_ Force is measured in units called newtons.

\_\_\_\_\_

9. \_\_\_\_\_ Balanced forces are forces that are equal in size and act in opposite directions.

\_\_\_\_\_

10. \_\_\_\_\_ If unbalanced forces act on an object that is not moving, it can move.

\_\_\_\_\_