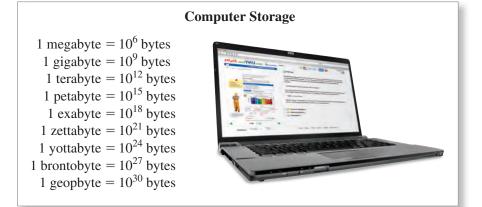
## **EXAMPLE 4** Comparing Hard Drive Storage

You are buying a computer. For an additional \$80, you can get 1 terabyte of storage instead of 100 gigabytes of storage.

- **a.** How much more storage is that?
- **b.** A typical movie uses 1 gigabyte of storage. How many movies could you store with 1 terabyte of storage?



## **SOLUTION**

**a.** 100 gigabytes of storage is

 $100 \times 10^9 = 100,000,000$  bytes.

100 billion bytes

1 terabyte of storage is

 $10^{12} = 1,000,000,000,000$  bytes.

1 trillion bytes

1 trillion is 10 times more than 100 billion. So, the additional \$80 will give you 10 times the amount of storage.

**b.** A terabyte is 1000 gigabytes. So, you could store about 1000 movies with 1 terabyte of storage.





Use the information in the paragraph below to find the storage of an Apple iPad.

## **Hello Zettabytes**

The so-called digital universe has grown to 800,000 petabytes, or 0.8 zettabyte. That is equivalent to all the information that can be stored on 50 billion Apple iPads.

