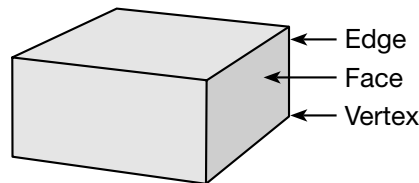


**• Rectangular Prisms**

- The shape of a rectangular box is called a **rectangular prism** or **rectangular solid**.
- The flat sides of a rectangular prism are called **faces**.
- Two faces meet at an **edge**.
- Edges meet at a point called a **vertex**.

**Rectangular Prism**

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**Practice:**

1. Draw a rectangular prism.

2. How many vertices does a rectangular prism have? \_\_\_\_\_

3. How many edges does a rectangular prism have? \_\_\_\_\_

4. How many faces does a rectangular prism have? \_\_\_\_\_

**• Counting Cubes**

To find the total number of cubes in a stack, we use three steps:

**Step 1:** Count the cubes in one layer.

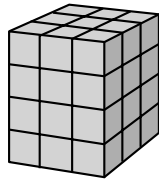
**Step 2:** Count the number of layers.

**Step 3:** Combine by adding or multiplying.

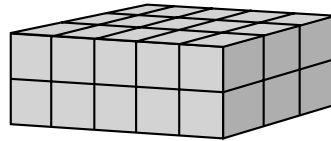
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**Practice:**

1. The picture below shows a stack of cubes.



- a. How many cubes are in each layer? \_\_\_\_\_
- b. How many layers are there? \_\_\_\_\_
- c. How many cubes are there in all? \_\_\_\_\_
2. A box is filled with cubes as shown in the picture at right.



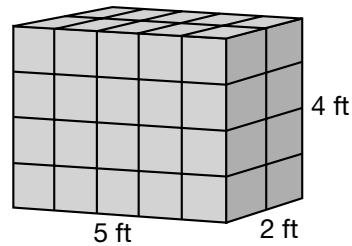
- a. How many cubes are in each layer? \_\_\_\_\_
- b. How many layers are there? \_\_\_\_\_
- c. How many cubes are there in all? \_\_\_\_\_

## • Volume

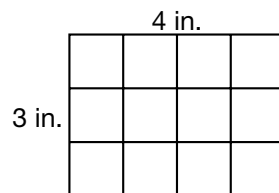
- The amount of space an object occupies is called its **volume**.
- A cube with edges one inch long has a volume of one cubic inch.

### Practice:

1. Molly helped her dad stack 1-foot cubic boxes in the garage.



- a. How many boxes were in each layer of the stack? \_\_\_\_\_
- b. How many layers were there? \_\_\_\_\_
- c. What is the volume of the stack? \_\_\_\_\_
2. Manuel filled a small box with 1-inch cubes. The picture shows the top layer. There are two layers of cubes.



- a. How many cubes are in the box? \_\_\_\_\_
- b. What is the volume of the box in cubic inches? \_\_\_\_\_

**• Weight: Ounces, Pounds, and Tons**

- The **weight** of an object is a measure of how heavy it is.
- Weight can be measured in **ounces, pounds, or tons.**

$$1 \text{ pound} = 16 \text{ ounces}$$

$$1 \text{ ton} = 2,000 \text{ pounds}$$

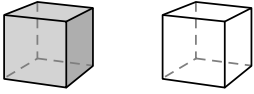

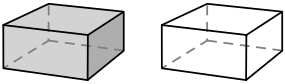
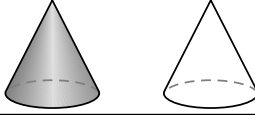
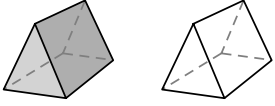
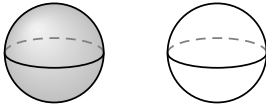
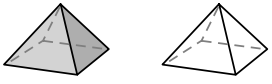
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**Practice:**

1. Would you describe the weight of a watermelon in ounces, pounds, or tons? \_\_\_\_\_
2. Which animal weighs about an ounce? \_\_\_\_\_  
**A** mouse            **B** pony            **C** whale            **D** cat
3. Would you describe the weight of a bus in ounces, pounds, or tons? \_\_\_\_\_
4. A puppy weighed about 3 pounds. About how many ounces did the puppy weigh? \_\_\_\_\_
5. An elephant can weigh 4 tons. How many pounds is equal to 4 tons? \_\_\_\_\_
6. The bag of grapes weighs about 2 pounds. About how many ounces does the bag of grapes weigh? \_\_\_\_\_

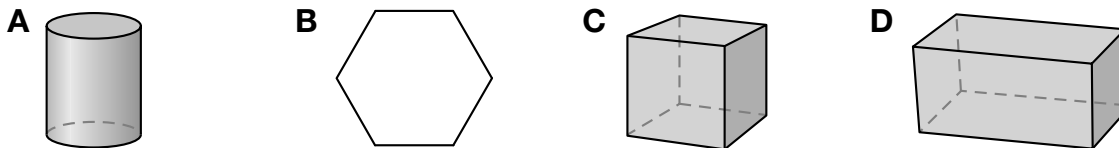
**• Geometric Solids**

Geometric shapes that take up space are sometimes called **solids**.

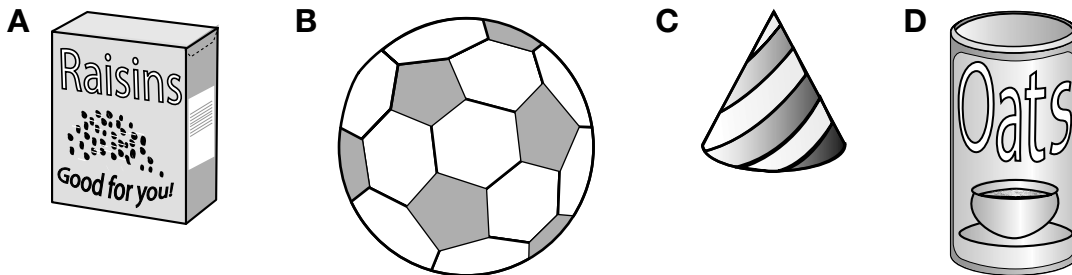
Shape	Name	Shape	Name
	Cube		Cylinder
	Rectangular prism		Cone
	Triangular prism		Sphere
	Pyramid		

**Practice:**

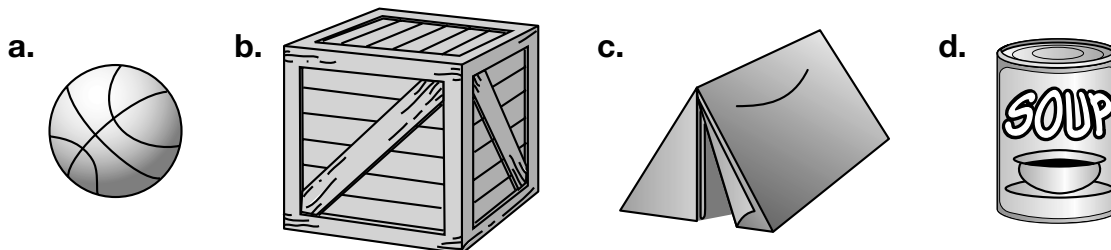
1. Which of these figures does **not** represent a solid?



2. Which object best represents a cone?



3. Write the geometric name for the shape of each figure below.



\_\_\_\_\_

### • Multiplication Facts: 11s and 12s

- We can use a multiplication table to find products.
- We can learn multiplication facts by practicing them with a multiplication table or by extending patterns.

#### **Practice:**

Find each product.

1.  $11 \times 11$  \_\_\_\_\_      2.  $12 \times 5$  \_\_\_\_\_      3.  $7 \times 11$  \_\_\_\_\_

4.  $8 \times 12$  \_\_\_\_\_      5.  $12 \times 8$  \_\_\_\_\_      6.  $11 \times 12$  \_\_\_\_\_

7. Gilbert's mother bought 6 dozen eggs. There are 12 eggs in one dozen. Complete the table below to show many eggs are in 6 dozen.

<b>Number of cartons</b>	1	2	3	4		
<b>Number of eggs</b>	12	24				

8. Barry reads 11 pages of his book every night. Complete the table below to show how many pages Barry reads in 5, 6, 7, and 8 nights.

<b>Number of nights</b>	1	2	3	4	5	6	7	
<b>Number of pages</b>	11	22	33	44				

Find each product.

9.  $11 \times 5$  \_\_\_\_\_      10.  $12 \times 3$  \_\_\_\_\_      11.  $8 \times 11$  \_\_\_\_\_

12.  $4 \times 12$  \_\_\_\_\_      13.  $12 \times 6$  \_\_\_\_\_      14.  $11 \times 9$  \_\_\_\_\_

**• Multiplying Three Numbers**

To multiply three numbers:

**Step 1:** Multiply two of the factors.**Step 2:** Multiply the product by the third factor.**Practice:**

Find each product.

1.  $2 \times 6 \times 4$  \_\_\_\_\_

2.  $4 \times 3 \times 2$  \_\_\_\_\_

3.  $2 \times 1 \times 1$  \_\_\_\_\_

4.  $5 \times 2 \times 2$  \_\_\_\_\_

5.  $2 \times 3 \times 8$  \_\_\_\_\_

6.  $6 \times 2 \times 5$  \_\_\_\_\_

7.  $3 \times 4 \times 2$  \_\_\_\_\_

8.  $2 \times 3 \times 6$  \_\_\_\_\_

9.  $2 \times 4 \times 7$  \_\_\_\_\_

10.  $9 \times 1 \times 2$  \_\_\_\_\_

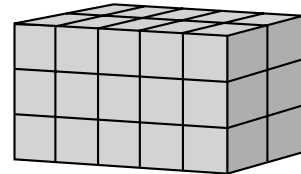
11. Use the prism at right to answer questions **a–d**.

a. What is the length of the prism? \_\_\_\_\_

b. What is the width of the prism? \_\_\_\_\_

c. What is the height of the prism? \_\_\_\_\_

d. Write a multiplication number sentence to find the volume of the prism. \_\_\_\_\_



**• Multiplying Multiples of Ten**

- The **multiples of ten** are the numbers that we say when we count by tens.

- To multiply multiples of ten:

**Step 1:** Multiply the digit in the tens place by the other factor.

**Step 2:** Attach a zero to the product.

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**Practice:**

Find each product.

1.  $4 \times 70$  \_\_\_\_\_

2.  $3 \times 20$  \_\_\_\_\_

3.  $6 \times 50$  \_\_\_\_\_

4.  $80 \times 3$  \_\_\_\_\_

5.  $50 \times 5$  \_\_\_\_\_

6.  $7 \times 20$  \_\_\_\_\_

7.  $3 \times 70$  \_\_\_\_\_

8.  $8 \times 20$  \_\_\_\_\_

9.  $90 \times 3$  \_\_\_\_\_

10. Amy has nine \$20 bills. How much money is that? \_\_\_\_\_

11. How much money is three \$50 bills? \_\_\_\_\_

12. There are 30 pencils in a box. How many pencils are there in 4 boxes? \_\_\_\_\_



**• Length: Centimeters, Meters, and Kilometers**

Metric units of length include **centimeters**, **meters**, and **kilometers**.

**Metric Units of Length**

Unit	Abbreviation	Reference
centimeter	cm	width of a finger
meter	m	one BIG step
kilometer	km	$\frac{6}{10}$ mile

$$1 \text{ meter} = 100 \text{ centimeters}$$

**Practice:**

- Which length could be the length of a pen?  
**A** 12 feet                      **B** 12 kilometers  
**C** 12 centimeters              **D** 12 meters
- Wesley ran 1 kilometer. How many meters is a kilometer? \_\_\_\_\_
- Measure the rectangle below in centimeters.



- What is the length of the rectangle? \_\_\_\_\_
  - What is the width of the rectangle? \_\_\_\_\_
  - What is the perimeter of the rectangle? \_\_\_\_\_
  - What is the area of the rectangle? \_\_\_\_\_
- How many centimeters equal one meter? \_\_\_\_\_

### • Mass: Grams and Kilograms

**Grams** and **kilograms** are units of mass in the metric system.

**Metric Units of Mass**

Unit	Abbreviation	Reference
gram	g	dollar bill or large paper clip
kilogram	kg	basketball

$$1 \text{ kilogram} = 1000 \text{ grams}$$

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#### **Practice:**

- Which is the best estimate for the mass of a bicycle?  
**A** 20 grams      **B** 20 kilograms
- Which is the best estimate for the mass of a frog?  
**A** 300 grams      **B** 300 kilograms
- Which is the best estimate for the mass of a plastic ruler?  
**A** 4 grams      **B** 4 kilograms      **C** 40 kilograms
- The mass of a basketball is about one kilogram. How many grams is a kilogram? \_\_\_\_\_
- Arrange these objects in order from least mass to greatest mass:

a pencil \_\_\_\_\_

a chair \_\_\_\_\_

an automobile \_\_\_\_\_

a desk \_\_\_\_\_

a book \_\_\_\_\_