Name: ANSWER KEY **5.MD.1**

Directions: Solve each problem.

Convert each measurement.

5 kilometers = 5,000 meters

3 meters = 300 centimeters

70 millimeters = 7 centimeters

Convert each measurement.

8 feet = 96 inches

2 miles = 10,560 feet

5,280 yards = 3 miles

Jack ran 4 kilometers each day for 3 days. How many meters did Jack run in 3 days?

12,000 meters

Bella is 4 feet tall, and her brother is 5 feet tall. How many inches tall are Bella and her brother combined?

108 inches

Convert each measurement.

3 kilograms = 3,000 grams

6 meters = 600 centimeters

7,000 milliliters = 7 liters

2 pounds = 32 ounces

4 tons = 8,000 pounds

96 inches = 8 feet

Name: _____

Converting Measurements - Customary Capacity

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Fill in each blank. Answer Key

Capacity Conversions	
1 cup = 8 fluid ounces	1 quart = 4 cups
1 pint = 2 cups	1 gallon = 4 quarts
1 quart = 2 pints	1 gallon = 16 cups

1) 8 qt = **16** pt

2) **28** qt = 7 gal

3) 12 c = **6** pts

4) **3** gal = 24 pt

5) **5** c = 40 fl oz

6) 32 c = **8** qt

7) 44 qt = **11** gal

8) **9** qt = 18 pt

9) 15 pt = **30** c

10) 7 c = **56** fl oz

Name: _____

Converting Measurements - Customary Length

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Fill in each blank. Answer Key

Length Conversions	
1 foot = 12 inches	1 mile = 5,280 feet
1 yard = 36 inches	1 mile = 1,760 yards
1 yard = 3 feet	

1) 36 in. = 3 ft

2) 33 ft = 11 yd

3) 3 mi = 15,840 ft

4) 63 ft = 21 yd

5) 5 ft = 60 in.

6) 180 in. = 15 ft

7) 12,000 ft = 2 mi 1440 ft

8) 117 in. = 9 ft 9 in.

9) 2 mi = 3,520 yd

10) 6 yd 2 ft = 20 ft

Name: _____

Converting Measurements - Customary Weight

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Fill in each blank. Answer Key

Weight Conversions
1 pound = 16 ounces 1 ton = 2,000 pounds

1) 4 T. = 8,000 lb.

2) 11 oz. = 7 lb.

3) 15 lb. = 240 oz.

4) 224 oz. = 14 lb.

5) 7 T. = 14,000 lb.

6) 13 T. = 26,000 lb.

7) 336 oz. = 21 lb.

8) 192 oz. = 12 lb.

9) 5,000 lb. = 2.5 T.

10) 17,000 lb. = 8.5 T.

Name: _____

Converting Customary Measurements - Word Problems

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Solve each problem. Answer Key

1) Alice drank 2.5 pints of milk. How many cups of milk did Alice drink?

5 cups

2) Nathan ran three miles. How many feet did Nathan run?

15,840 feet

3) Ruth's puppy weighs 11 pounds. How many ounces does her puppy weigh?

176 ounces

Name: _____

Converting Customary Measurements - Word Problems

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Solve each problem. Answer Key

1) Kim drank two quarts of juice, and Alice drank two pints of juice. How many cups of juice did they drink altogether?

12 cups

2) Kyle ran two miles every day for a week. How many yards did Kyle run in one week?

24,640 yards

3) Henry's pumpkin weighed four pounds, and Todd's pumpkin weighed five pounds. How many ounces did their pumpkins weigh altogether?

144 ounces

Name: _____

Converting Measurements - Metric Capacity

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Fill in each blank. Answer Key

Metric Capacity Conversions
1 liter = 1,000 milliliters

1) 6 L = 6,000 mL

2) 8 L = 8,000 mL

3) 150 mL = .15 L

4) 200 mL = .2 L

5) 1,100 mL = 1.1 L

6) 4 L = 4,000 mL

7) 3 L = 3,000 mL

8) 1700 mL = 1.7 L

9) 14 L = 14,000 mL

10) 5.8 L = 5,800 mL

Name: _____

Converting Measurements - Metric Length

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Fill in each blank. Answer Key

Metric Length Conversions
1 centimeter = 10 millimeters 1 meter = 100 centimeters 1 kilometer = 1,000 meters

1) 3 km = **3,000** m

2) **5** km = 5,000 m

3) 800 cm = **8** m

4) 700 m = **.7** km

5) **200** cm = 2 m

6) 13 km = **13,000** m

7) **9** km = 9,000 m

8) 1,400 cm = **14** m

9) 12 m = **1,200** cm

10) 6.3 km = **6,300** m

Name: _____

Converting Measurements - Metric Mass

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Fill in each blank. Answer Key

Mass Conversions
1 kilogram = 1,000 grams 1 gram = 1,000 milligrams

1) 4 kg = **4,000** g

2) **7** kg = 7,000 g

3) 140 mg = **.14** g

4) 300 g = **.3** kg

5) **6,000** mg = 6 g

6) 9 kg = **9,000** g

7) **3** kg = 3,000 g

8) 1500 mg = **1.5** g

9) 11 g = **11,000** mg

10) 4.8 kg = **4800** g

Name: _____

Converting Metric Measurements - Word Problems

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Solve each problem. Answer Key

1) Bessie the cow drank 34 liters of water. How many milliliters did Bessie drink?

34,000 milliliters

2) Jim biked 3,000 meters to the library. How many kilometers did Jim bike?

3 kilometers

3) Melissa's bunny weighs 1,800 grams. How many kilograms does her bunny weigh?

1.8 kilograms

Name: _____

Converting Metric Measurements - Word Problems

CCSS: 5.MD.1

I can convert standard measurement units within a given measurement system.

Solve each problem. Answer Key

1) An elephant can drink 190 liters of water each day. How many milliliters of water could four elephants drink in one day?

760,000 milliliters

2) Mary drove 24 kilometers to the mall. How many meters will she have driven by the time she returns home?

48,000 meters

3) Joe orders three pizzas that each weigh 900 grams. How many kilograms do all of Joe's pizzas weigh?

2.7 kilograms

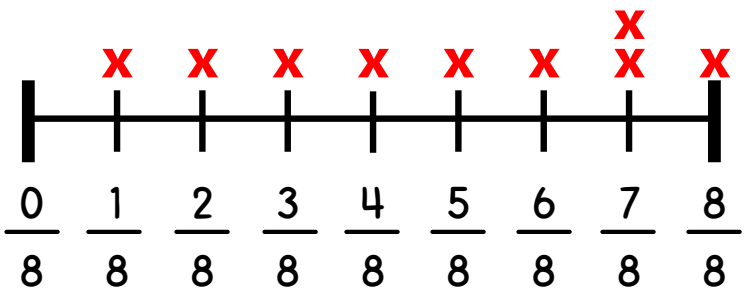
Name: ANSWER KEY

5.MD.2

Directions: Complete the line plot and answer each question.

Length of Todd's Worms in Inches		
2/8	1/2	1/8
7/8	6/8	5/8
3/8	1	7/8

Length of Todd's Worms in Inches



1. **Plot each measurement on the line plot.**
2. **What is the most common length of worm?** 7/8
3. **How many worms measured 1/2 inch or less?** 4
4. **If all the worms measuring 7/8 inches were added together, what would the total length be?** 1 3/4
5. **What is the total length of all of the worms?** 5 3/8
6. **What is the average length of the worms?** 43/72

(Hint: Divide the total length of all worms by 9.)

Name: _____

Line Plots to Display Data

CCSS: 5.MD.2

I can make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8).

On Tuesday morning, the middle-school track team held practice. The table below shows the distance each runner ran. Plot the distances on the line plot.

Runner's Name	Miles Run
Blake	1/4
Noah	1/8
Joseph	5/8
Olivia	1/2
Emma	1/8
Abby	3/8

1. How far did girls run altogether?

1 **miles**

2. What is the average distance that the girls ran?

1/3 **miles**

3. How far did the entire team run altogether?

2 **miles**

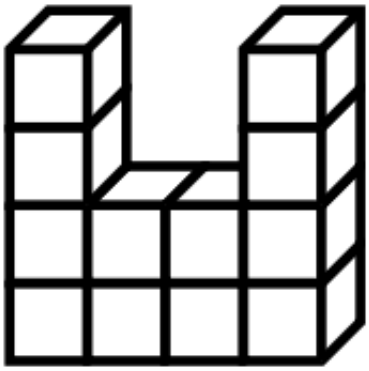
4. What is the average distance run by each team member?

1/3 **miles**

Name: ANSWER KEY **5.MD.3**

Directions: Solve each problem.

Find the volume.

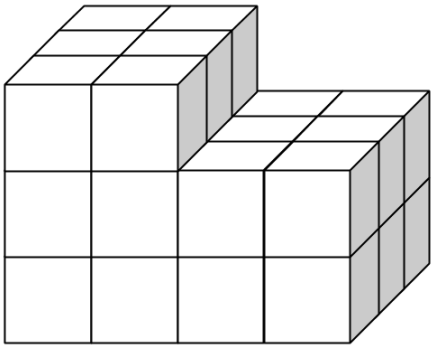


12 unit cubes

Use unit cubes to draw a figure that has a volume of 9 unit cubes.

Answers will vary.

Find the volume.



30 unit cubes

Use unit cubes to draw a figure that has a volume of 15 unit cubes.

Answers will vary.

How many unit cubes would you need to make a rectangular prism that is 7 units tall, 2 units wide, and 3 units long?

42 unit cubes

Name: _____

Line Plots to Display Data

CCSS: 5.MD.2

I can make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8).

On Tuesday morning, the middle-school cross country team went on a run. The table below shows the distance each runner ran. Plot the distances on the line plot.

Runner's Name	Miles Run
Blake	2 1/4
Noah	2 3/4
Joseph	2 5/8
Olivia	1 1/2
Emma	1 1/8
Abby	1 1/2

1. How far did girls run altogether?

4 1/8 miles

2. What is the average distance that the girls ran?

1 3/8 miles

3. How far did the entire team run altogether?

11 3/4 miles

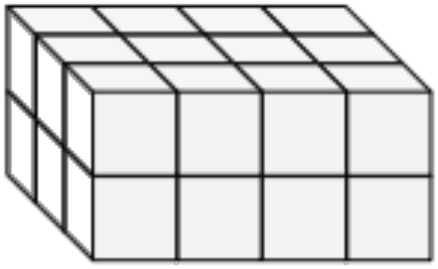
4. What is the average distance run by each team member?

1 23/24 miles

Name: ANSWER KEY **5.MD.4**

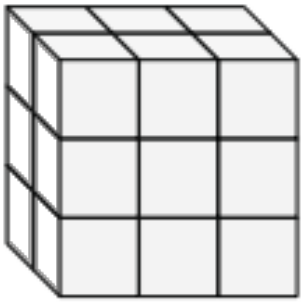
Directions: Solve each problem.

Find the volume. Each cube has a volume of one cubic unit.



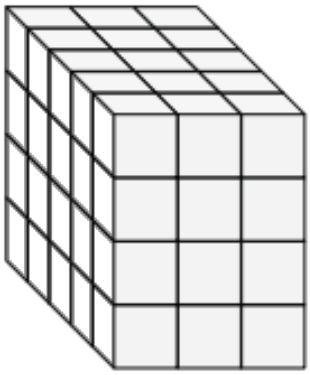
24 unit cubes

Find the volume. Each unit equals one centimeter.



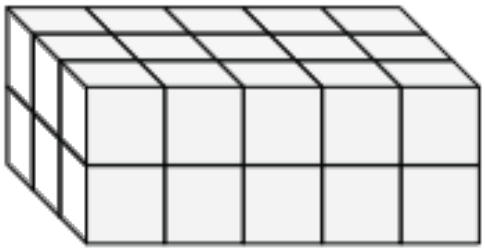
18 cm^3

Find the volume. Each unit equals one inch.



60 in^3

Find the volume. Each unit equals one foot.



30 ft^3

Ethan made a rectangular prism that has a volume of 16 cubic inches. What is one set of possible dimensions for Ethan's rectangular prism?

Answers will vary. All three dimensions must make 16 when multiplied together.

Name: _____

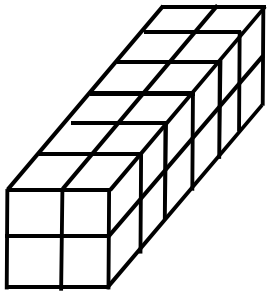
Measuring Volume

CCSS: 5.MD.3 & 4

I can recognize and measure volume as a cubic unit.

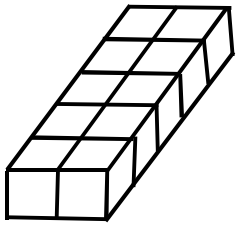
Find the volume of each figure.

1)



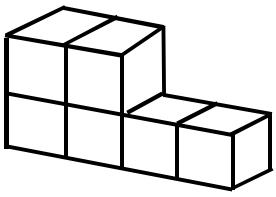
V = 24 cubic units

2)



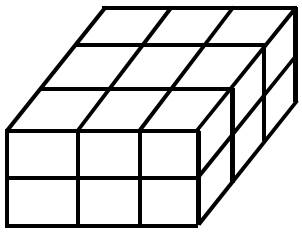
V = 10 cubic units

3)



V = 6 cubic units

4)



V = 18 cubic units

Name: _____

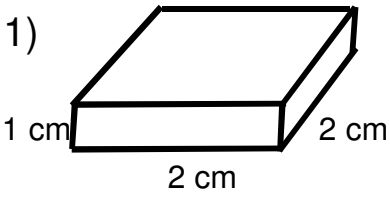
Measuring Volume

CCSS: 5.MD.3

I can apply the formulas V = l × w × h and V = b × h for rectangular prisms to find volumes of right rectangular prisms

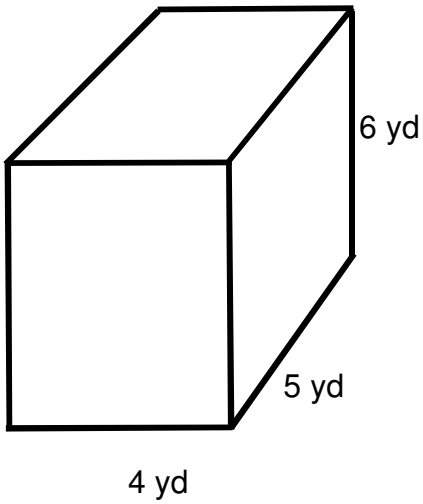
Find the volume of each figure.

1)



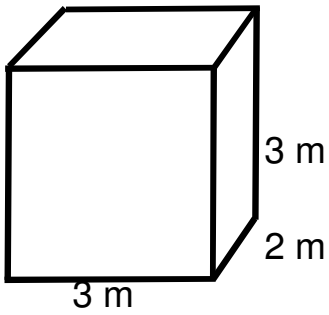
V = **4 cm^3**

2)



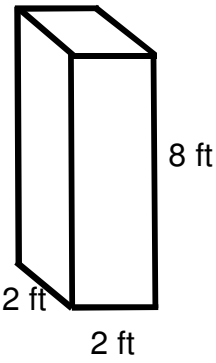
V = **120 yd^3**

3)



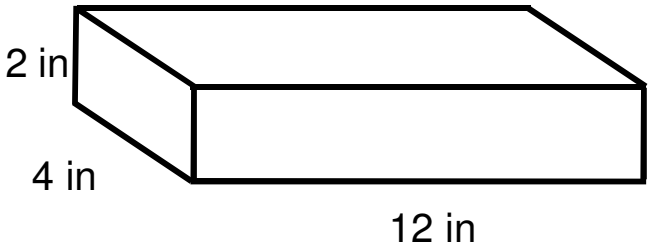
V = **18 m^3**

4)



V = **32 ft^3**

5)

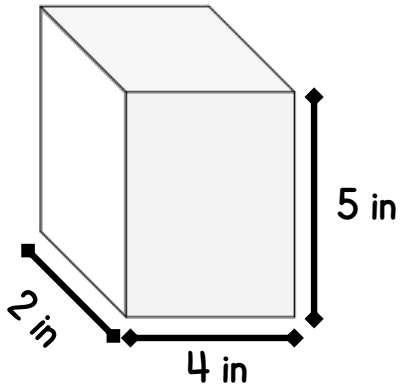


V = **96 in^3**

Name: ANSWER KEY **5.MD.5**

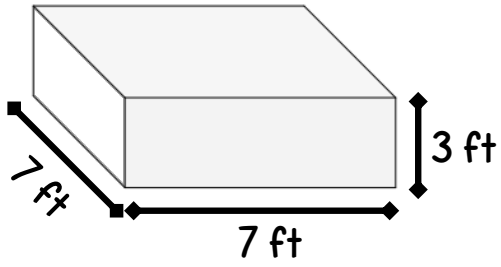
Directions: Solve each problem.

Find the volume.



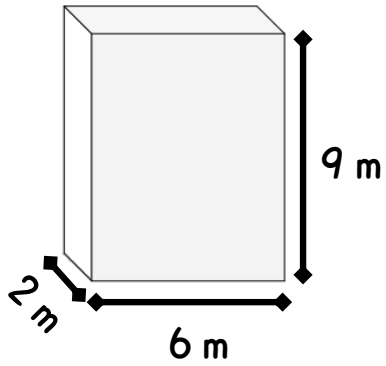
40 in³

Find the volume.



147 ft³

Find the volume.



108 m³

Cody's notebook is 3 centimeters tall, 10 centimeters wide, and 13 centimeters long. What is the volume of Cody's notebook?

390 cm³

Jill's closet is 7.5 feet tall, 5.5 feet wide, and 6 feet long. What is the volume of Jill's closet?

247.5 ft³

Name: _____

Volume Word Problems

CCSS: 5.MD.5

I can solve real-world problems involving volume of rectangular prisms.

Solve each problem. Answer Key

1) Mr. Arthur's cabinet has a height of 6 feet, a width or 4 feet, and a length of 5 feet. What is the volume of Mr. Arthur's cabinet?

120 $feet^3$

2) Kendra's suitcase is 24 inches tall, 16 inches wide, and 12 inches long. What is the volume of Kendra's suitcase?

4,608 $inches^3$

3) A shipping container is 3 meters tall, 3 meters wide, and 15 meters long. What is the volume of the shipping container?

135 $meters^3$