

5th Grade Math

Classwork Packet #15

Name: _____

Class: _____

Packet Due: _____

Name: _____ Class: _____

Customary Conversions

Use this space to draw the big G:

Fill in the chart:

_____ in = 1 ft

_____ ft = 1 yd

_____ in = 1 yd

_____ oz = 1 pound

1. Darren is making homemade applesauce. The recipe calls for 8 ounces of apples that makes 1 cup of applesauce. If Darren buys 6 pounds of apples, how many cups of applesauce can he make?

2. Ava buys cider from the apple orchards for herself and 5 of her friends. She wants to give a pint to each of them and keep a pint for herself. The apple cider containers are one-quart each. How many one-quart containers should she buy?

3. Samir is making hot chocolate. First, he heated 6 cups of milk and 1 pint of cream into a large pot. Then, he stirred in 4 cups of melted chocolate. How many cups of hot chocolate did Samir make?

4. Kemal is wrapping a present for his sister. He starts with 2 yards of ribbon. Then, he cuts off 9 inches to decorate the present. How many inches of ribbon does he have now?

5. Soup Shop sells soup in 1-quart containers. This morning, they made 6 gallons of tomato soup and put it into the 1-quart containers. They also have 8 containers leftover from yesterday. How many quart size containers of tomato soup do they have in all?

6. Dustin is going to a water park with his little brother, Colin. Since Colin is only 4 feet tall, they check to see if he is tall enough for the Super Slide. Sadly, the park's website says that he needs to be at least 52 inches tall. How many more inches does Colin need to grow before he is tall enough for the Super Slide?

7. Julia eats a bowl of granola for breakfast every morning. She wonders how much granola she eats in a year. If Julia eats about one 48-ounce bag of granola every month, how many pounds of granola does she eat each year?

Metric Conversions

Write in your metric conversions

1 kg	g
1 km	m
1 m	cm
1 m	mm

1. Brenda loves to cook with fresh herbs. So, she decides to plant 8 different herbs and keep the small pots on her kitchen windowsill. She starts with a 2-kilogram bag of soil and puts the same amount of soil in each pot. If she uses all of the soil, how many grams does she add to each pot?
2. Tracy wants to paint her room. She estimates that she will need 800 milliliters of paint, but the hardware store only sells paint in liters. If Tracy buys one liter of paint, how much will she have leftover?
3. Tess is making a scale model of the Eiffel Tower for French class. Her model is 500 times smaller than the actual tower, which is 300 meters tall. How many millimeters tall is Tess's model?

4. David is scuba diving off the coast of Australia. When he is ready to come back to the surface, he rises 36 meters at a safe speed. He climbs 30 centimeters every second. How many seconds will it take him to reach the surface?
5. Ron's parents give him a small scoop of peas with dinner. He lines them up all the way across the top of his 20-centimeter plate. Then, he eats them one at a time. If each pea is about 8 millimeters wide, how many peas does Ron eat?
6. Instead of having a cake, Lisa wants to make ice cream sundaes at her next birthday party. She thinks each person will eat 200 milliliters of ice cream, and there will be 24 people at her party. How many liters of ice cream should she buy?

Area/Volume/Perimeter

A water tank in the shape of a right rectangular prism is 11 feet deep. The top of the water tank has an area of 220 square feet. What is the volume, in cubic feet, of the water tank?

A 20

B 231

C 1,331

D 2,420

A swimming pool is shaped like a right rectangular prism. The pool is 36 feet long and 20 feet wide. What is the total amount of water, in cubic feet, needed to fill the pool to a depth of 4 feet?

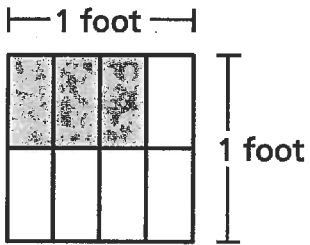
A 800

B 864

C 2,880

D 5,760

The shaded part of the square below has a length of $\frac{3}{4}$ foot and a width of $\frac{1}{2}$ foot.



What is the area, in square feet, of the shaded part of the square?

- A $\frac{1}{8}$
- B $\frac{3}{8}$
- C $\frac{4}{8}$
- D $\frac{5}{8}$

Mr. Chang needs to ship 8 boxes of cookies in a packing carton. Each box is a right rectangular prism 8 inches long, 5 inches wide, and 3 inches high. What is the volume, in cubic inches, of each box?

Show your work.

Answer _____ cubic inches

Mr. Chang wants to ship all 8 boxes in one packing carton. He has a choice of three different sizes of packing cartons that are right rectangular prisms of the following sizes.

- packing carton A: 11 inches long, 10 inches wide, and 8 inches high
- packing carton B: 16 inches long, 10 inches wide, and 5 inches high
- packing carton C: 17 inches long, 11 inches wide, and 7 inches high

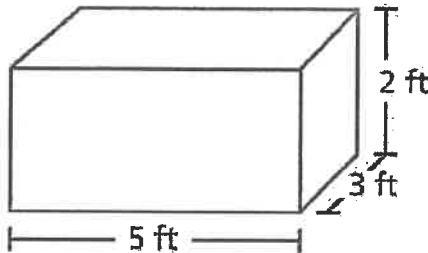
Which packing carton can Mr. Chang use?

Show your work.

Answer packing carton _____

47

A toy company uses the box shown below to package wooden cubes.



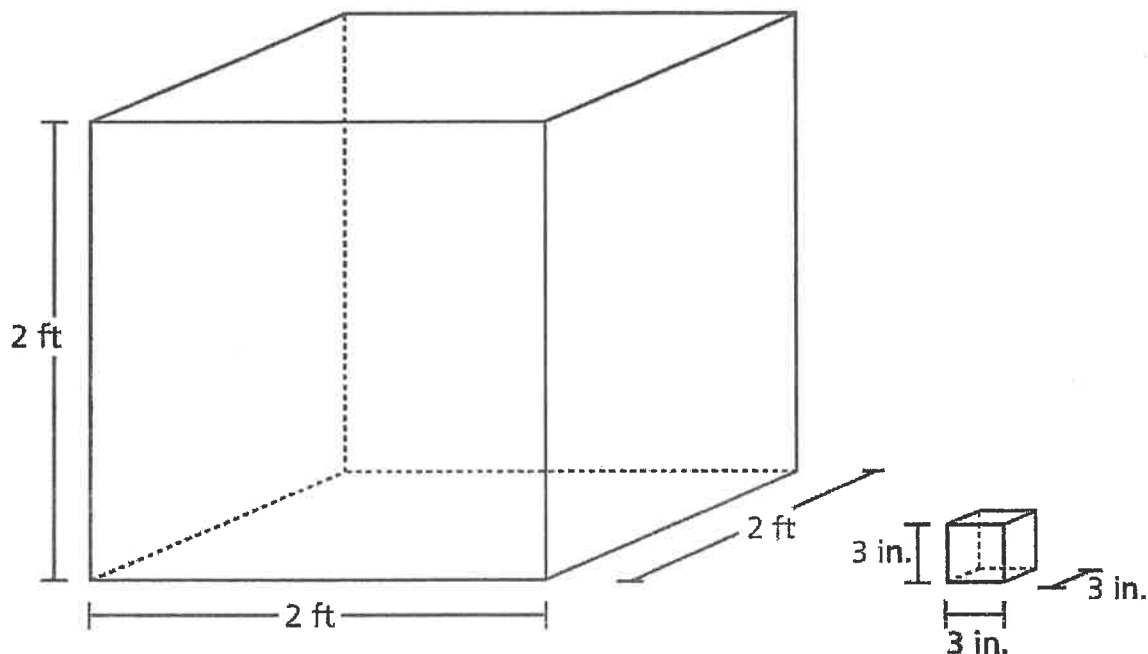
Each wooden cube has a volume of $\frac{1}{8}$ cubic foot. In total, how many wooden cubes will fit in the box?

Show your work.

Answer _____ wooden cubes

55

A company puts bottles of lotion into boxes that are three-inch cubes. The boxes were then packed into a shipping crate, shown below.



How many boxes of lotion were packed into the shipping crate to fill it completely?

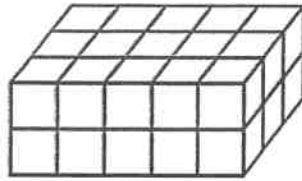
Show your work.

Answer _____ boxes of lotion

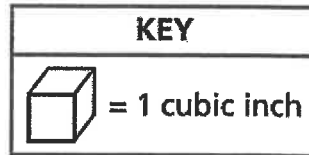
STOP

3

Prism A is shown below. The height of Prism B is 2 times the height of Prism A. The length and width of both prisms are the same.



Prism A



What is the volume, in cubic inches, of Prism B?

- A 20
- B 44
- C 45
- D 60

9

The table below lists the number of layers of centimeter cubes, along with the number of cubes in each layer, in each of four rectangular prisms.

LAYERS OF CUBES IN RECTANGULAR PRISMS

Prism	Number of Layers	Number of Cubes in Each Layer
R	3	8
S	5	5
T	6	5
U	7	4

Which rectangular prism has the greatest volume?

- A Prism R
- B Prism S
- C Prism T
- D Prism U

INDEPENDENT PRACTICE

1. Mr. Anderson has a list of his students' scores on their spelling quiz.

80, 90, 100, 95, 70, 85, 85, 90, 95, 85, 100, 90, 70, 85, 85

Use the steps below to turn Mr. Anderson's list into a line plot.

1. Organize your data in order from least to greatest.
2. Create a horizontal number that goes from your smallest to largest number.
3. Mark an 'X' above the horizontal line every time a number occurs.
4. Add a title and label your number line.

- What was the lowest grade?
- Were there any grades that no students received?

INDEPENDENT PRACTICE

2. The Millerstown Knitting Club is having a scarf-knitting competition for charity. They recorded the length of the scarves that were entered in the competition. Scarves are measured in feet.

$9\frac{1}{2}$, 8, 7, $7\frac{1}{2}$, $8\frac{1}{2}$, $7\frac{1}{2}$, 7, 9, $6\frac{1}{2}$, $9\frac{1}{2}$, 8, 9, 8, $7\frac{1}{2}$

Use this data to create a line plot.

- How many people attended the knitting club meeting on this night?
- How many scarves were 8 feet long?

INDEPENDENT PRACTICE

3. Fred has a fitness tracking watch that records his morning run each morning, in miles. Here are his runs for the past ten days:

$$5\frac{1}{4}, 3\frac{1}{2}, 4, 4\frac{3}{4}, 5\frac{1}{4}, 3\frac{3}{4}, 4, 5\frac{1}{2}, 3\frac{1}{2}, 4$$

Use this data to create a line plot.

- What is the difference between Fred's longest run and shortest run?
- What was the total distance that Fred ran in these ten days?

CHALLENGE

The Jones High School swim team had a contest to see who could hold their breath the longest. The data is recorded in minutes.

$$\frac{3}{4}, 1, \frac{5}{8}, \frac{3}{4}, \frac{7}{16}, \frac{1}{2}, \frac{11}{16}, \frac{7}{8}, \frac{1}{2}, \frac{7}{16}, \frac{7}{8}, \frac{7}{16}, \frac{3}{8}, 1\frac{1}{8}, \frac{7}{16}, \frac{3}{8}$$

Use this data to create a line plot.

- How many people held their breath for longer than $\frac{3}{4}$ minute?
- Find the total length of time, in minutes, of everyone who held their breath less than $\frac{5}{8}$ minute.

EXIT QUIZ: CREATING *line plots*

NAME: _____

Maxwell is doing a survey of his friends. He asked them to record how much television they watched over the weekend. Here are his results, in hours:

$5\frac{1}{2}$, 3, 2, 0, $6\frac{1}{2}$, 3, 3, 5, $6\frac{1}{2}$, $5\frac{1}{2}$, $3\frac{1}{2}$, $2\frac{1}{2}$

Use this data to create a line plot.

challenge!

How many total hours did Maxwell's friends watch television over the weekend?

