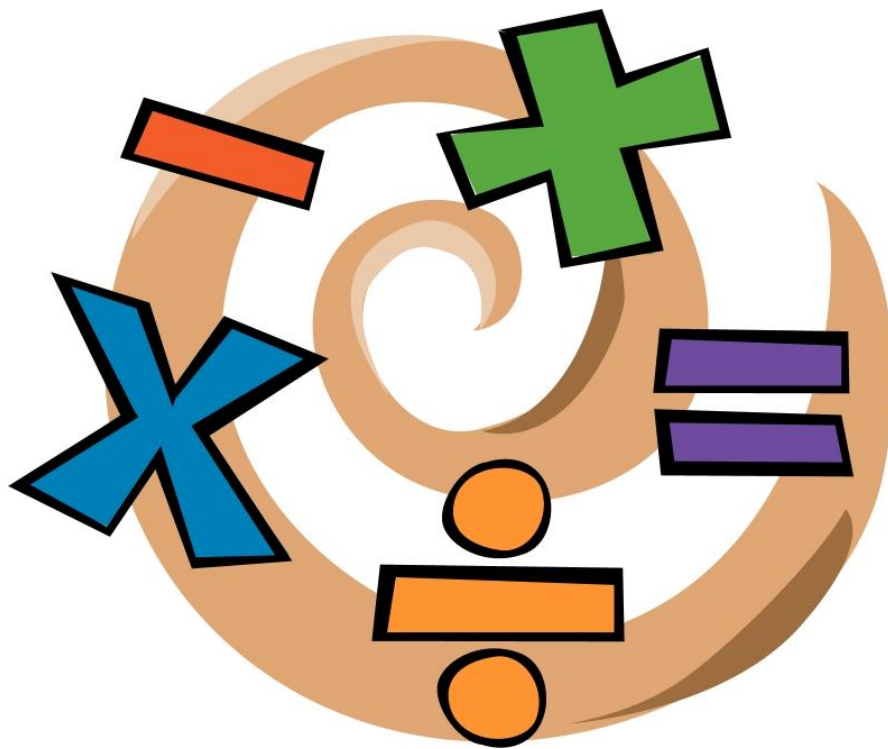


Tilden Middle School



Summer Math Packet Incoming Grade 6

1. Several expressions are shown. Decide if the value of the expression is less than, equal to, or greater than 15. Write the expressions in the corresponding column of the table.

Less than 15	Equal to 15	Greater than 15

$$2 \times \frac{1}{2} \times (5 \times 3)$$

$$(5 \times 3) \div 5$$

$$\frac{1}{4} \times (5 \times 3)$$

$$(5 \times 3) + 6$$

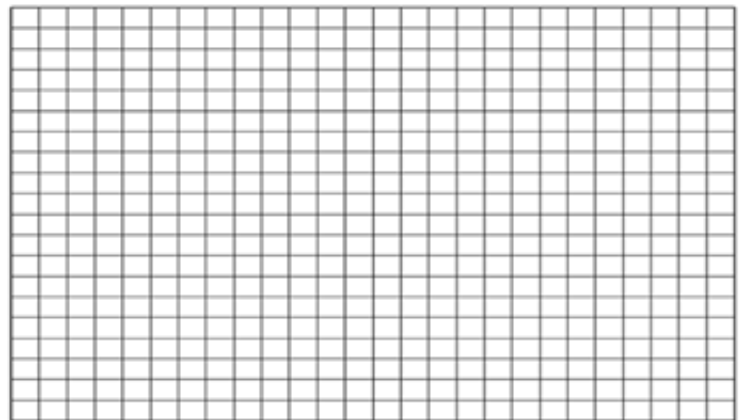
$$20 - (5 \times 3)$$

$$(5 \times 3) \times (8 - 7)$$

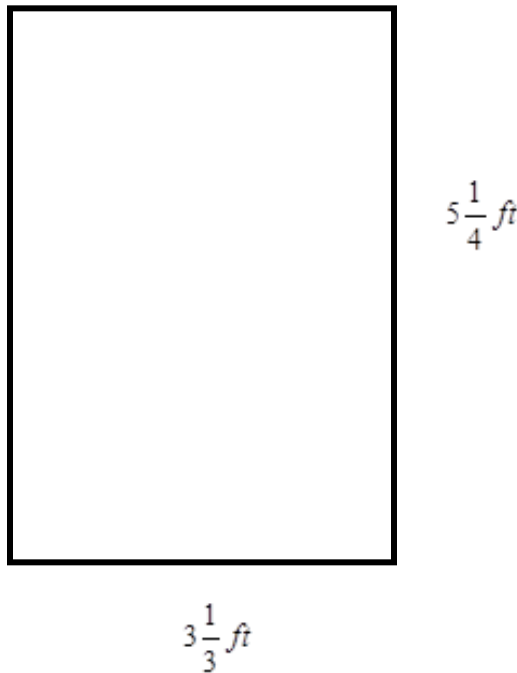
$$1 \times (5 \times 3)$$

$$2 \times (5 \times 3)$$

2. Each square in the grid represents 25 units. Draw a rectangle that has an area of 875 square units.



3. Rob is calculating the area of the rectangle below. His strategy is to multiply the whole numbers first and then multiply the fractions. Since $3 \times 5 = 15$ and $\frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$, he concludes that the area of the rectangle is $15\frac{1}{12}$ square feet. Is he correct? Explain your thinking.



4. Jen measured the growth of a sunflower.

- In week one, it grew $2\frac{1}{2}$ inches.
- In week two, it grew $2\frac{3}{4}$ inches.
- In week three, it grew $3\frac{1}{4}$ inches.

How much did the sunflower grow in the three weeks?

5. List the equivalent measure in the corresponding column of the table. Some of the measurements may not have an equivalent measure.

1 meter	1 centimeter	1 millimeter

0.001 km

0.01 mm

0.1 cm

0.01 km

0.01 m

6. Look at the rectangle

$$4\frac{1}{2} \text{ cm}$$

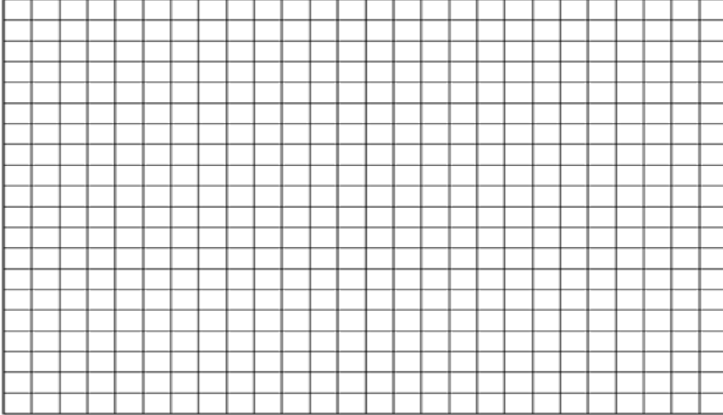


$$8\frac{1}{2} \text{ cm}$$

What is the area of the rectangle in square centimeters?

7. James folds a square piece of paper in half to create a rectangle with a perimeter of 12 inches.

Draw the original square on the grid. Then find the area of the RECTANGLE James creates.



8. At Maria's school, 6 classes are going on a field trip. Each class has 26 students and 1 teacher. Each bus holds a maximum of 48 people. The school requests 3 buses for the field trip.

Read Maria's argument below. Circle the statement in Maria's argument that has incorrect reasoning or inaccurate calculations. Then correct the statement.

- a. Maria says that 3 buses are not enough.
- b. She argues that 3 buses will hold a maximum of 144 people.
- c. The classes need space for 156 people.
- d. The school needs to order 1 more bus.

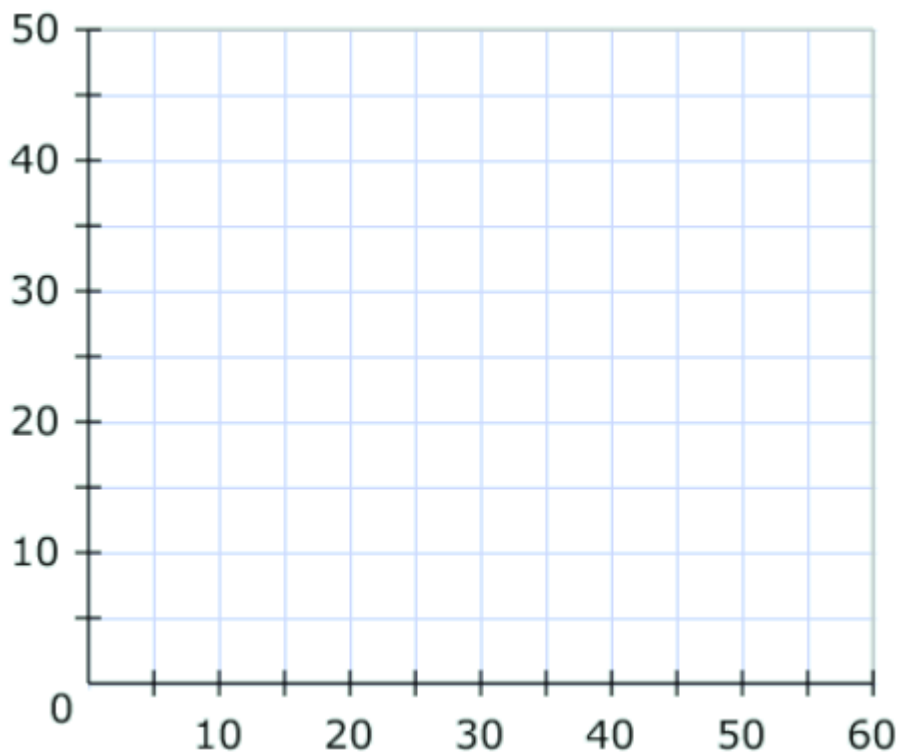
9. Connor is buying tickets to a play. The play he and his friends want to see costs \$4.75 per ticket. Connor has \$26.00 in his pocket.

What is the greatest number of tickets Connor can buy?

10. Which number is equal to 10^4 ?

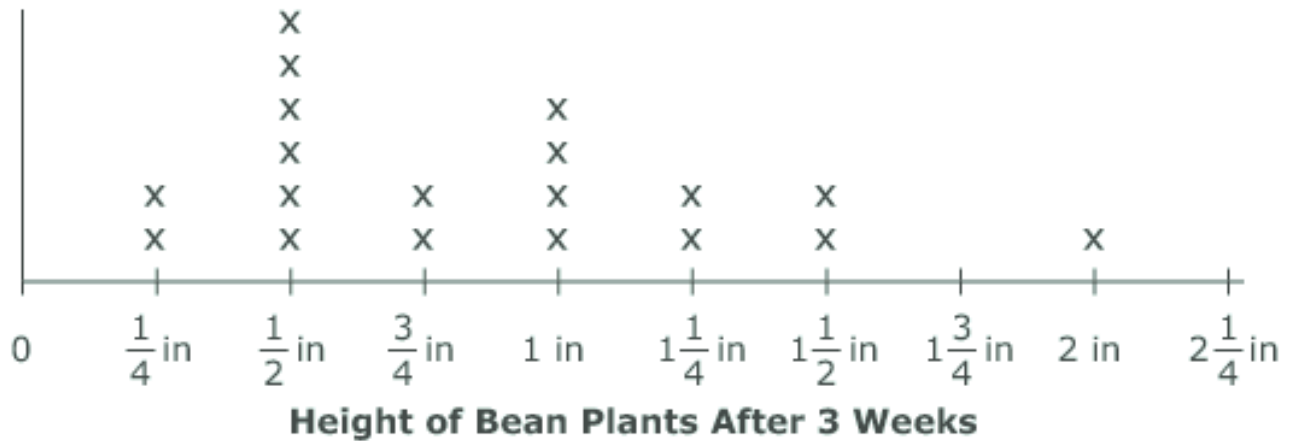
- a. 100
- b. 1,000
- c. 10,000
- d. 100,000

11. Draw a rectangle on the grid below with an area of 1575 square units and a side of 45 units.



12. A baker used 12 cups of batter to make muffins. It took $\frac{2}{3}$ cup of batter to make 1 muffin. How many muffins did the baker make?

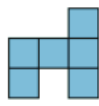
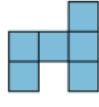
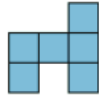
13. This line plot shows the heights of the bean plants in a garden after 3 weeks.



What is the total height, in inches, of all the bean plants that are taller than 1 inch?

14. William used 6 squares to make the figure shown.

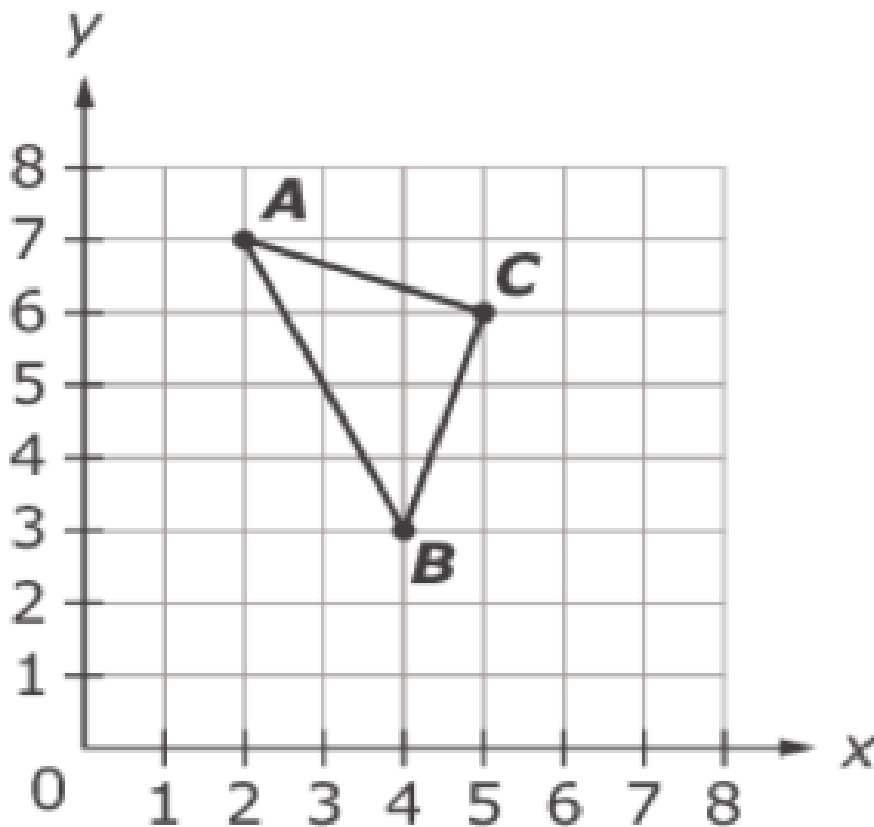
- A. Add a square so that the perimeter increases
- B. Add a square so that the perimeter stays the same.
- C. Add a square so that the perimeter decreases.

<p>A. Perimeter increases</p> 
<p>B. Perimeter stays the same</p> 
<p>C. Perimeter decreases</p> 

15. Show two different ways to complete the multiplication problem.

$ \begin{array}{r} 4 \square \\ \times 56 \\ \hline 2 \square \square 2 \end{array} $
$ \begin{array}{r} 4 \square \\ \times 56 \\ \hline 2 \square \square 2 \end{array} $

16. Look at the triangle ABC.

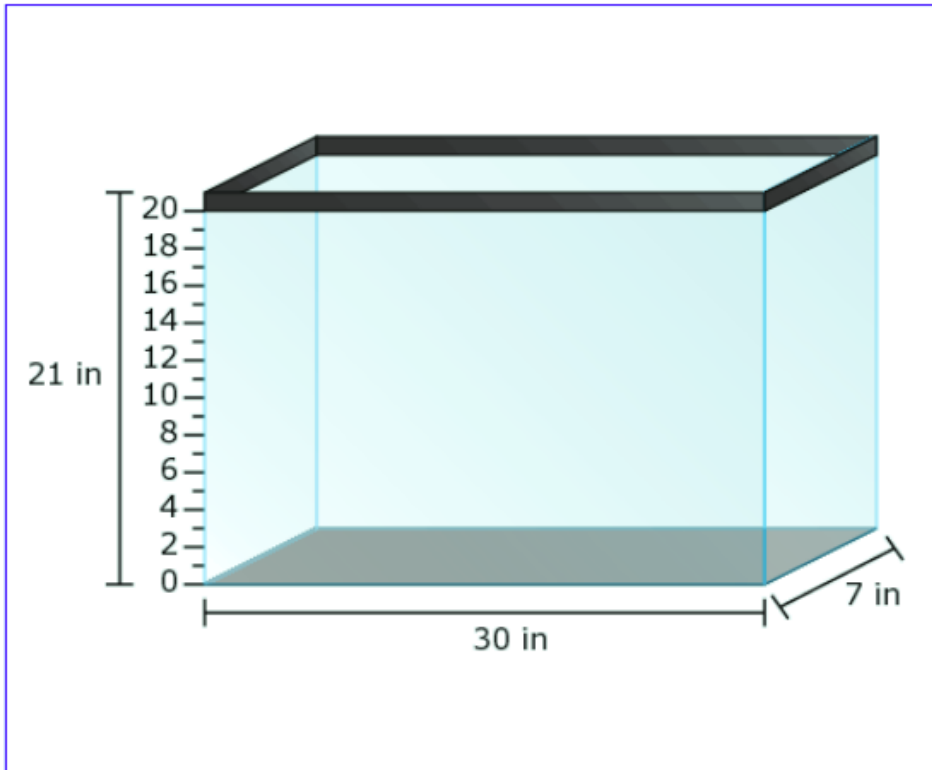


What are the coordinates of points A, B, and C?

- a. A (2, 7), B (4, 3), C (5, 6)
- b. A (2, 7), B (5, 6), C (4, 3)
- c. A (7, 2), B (3, 4), C (6, 5)
- d. A (7, 2), B (4, 3), C (5, 6)

17. Susan has 4 gallons of juice. How many cups of juice does she have?

18. Walter puts 1050 cubic inches of dirt into the tank shown. What will the height be of the dirt level in this tank?



19. Tyler is 8 years old. His sister Olivia is 4 years less than twice his age.

Write the numerical expression for Olivia's age.

20. Jeff measures his desk. He does not have a ruler, but he know that the length of the tissue box is 9 inches and the width is 5 inches. Use the tissue box to estimate the area of the desk surface.

Jeff's Desk

Key
1 tissue box

area = in.²

21. Find two fractions that can be added using the denominator 24. Write those two fractions in the box.

Like Denominator = 24	

$$\frac{1}{6}$$

$$\frac{1}{5}$$

$$\frac{3}{16}$$

$$\frac{5}{7}$$

$$\frac{9}{10}$$

$$\frac{1}{9}$$

$$\frac{7}{8}$$

22. In a game at a carnival, a person throws rings onto a table with different colors painted on it. Each color has different point values as shown.

- Blue: 5 points
- Red: 3 points
- Yellow: 2 points

Hailey plays the game. Exactly 12 rings thrown by Hailey landed in the red section. She keeps throwing more rings. She eventually scores 55 points.

How many rings landed on the blue and yellow areas so that Hailey scored 55 points?

