



First Name: _____ Last Name: _____ Grade: _____

Teacher: _____ Parent's email: _____

Draw a Model

As we continue to sharpen our problem-solving skills, we find that 'Draw a Model' and 'Make an Equation' are great strategies to master when we solve for the unknown. In this math challenge, you may use either or both strategies to solve the problems.

Kinder & First Grade: solve at least 3 problems.

Second & Third Grade: solve at least 6 problems.

Fourth Grade and above: solve at least 12 problems.

Problems

Answer

1. When Tia adds a number to 8, she gets 13. What is the number that she adds?

2. Tom has 9 toy cars. He has 3 more than his brother. How many toy cars did they have altogether?

3. Fifteen children came to Daisha's birthday party. Six of them were boys. How many more girls than boys came to Daisha's party?

4. During the summer, Ken made 18 cranes out of blue origami papers and 13 cranes out of green origami papers. He gave some cranes to Naomi and he had 15 cranes left. How many cranes did he give to Naomi?

5. Jessica made 33 chocolate chips cookies. She made 12 more chocolate chips cookies than oatmeal cookies. How many cookies did she make altogether?

6. 644 children took part in a walkathon. 395 children completed the walkathon in 1 hour. How many children completed the walkathon in more than 1 hour?

7. In the morning, Lucas made 172 red velvet cupcakes and 246 chocolate cupcakes. He then sold some and had 69 cupcakes left. How many cupcakes did he sell?

8. Jim and Tia have \$360 altogether. Ann and Tia have \$278 altogether. If Ann has \$125, how much money does Jim have?

9. Roy had \$36. He spent $\frac{1}{6}$ of his money on a book. Then he spent $\frac{2}{5}$ of his **remaining** money on a calculator. How much money did he spend altogether?

10. When Mike's gas tank is $\frac{1}{5}$ full, it takes an additional 12 gallons of gas to fill the tank. How many gallons does Mike's gas tank hold when full?

11. A middle school science team is made up of students from 6th, 7th, and 8th grades. Four team members are 6th graders, eleven are 7th graders, and two-sevenths of the team members are 8th graders. How many science team members are 8th graders?

12. Together two identical blocks weigh 7.8 lb. What is the weight of 8 identical blocks?

13. Daisha is painting a rectangular wall that is 15 feet tall and $18\frac{2}{3}$ feet wide. She uses 1 quart of paint for every 75 square feet of wall. How many quarts of paint will she use to paint the entire wall?

14. Pari brought 4 gallons of water on a hike. She gave $\frac{1}{3}$ of a gallon to each of her hiking companions, which left her with $1\frac{1}{3}$ gallons of water. How many companions were on the hike with Pari?

15. At a technology show, 126 super laptops were sold on Day 1, $\frac{1}{5}$ of the remaining super laptops were sold on Day 2 and the rest were sold on Day 3. The total number of super laptops sold on the first two days was twice the number of super laptops sold on Day 3. How many super laptops were sold altogether in the three days?

16. The "Everything is Fun" store had a total of 350 red and blue magic pens. After $\frac{1}{3}$ of the red magic pens and $\frac{1}{2}$ of blue magic pens were sold, there was an equal number of red and blue magic pens left. How many blue magic pens were there at first?

17. In a school, $\frac{3}{4}$ of the fourth graders and $\frac{2}{3}$ of the fifth graders are boys. There is an equal number of boys in the two grades. There are 35 more girls in the fifth grade than in the fourth grade. How many students are there in each grade?

18. The lengths of the sides of a quadrilateral are consecutive multiples of 6. If the perimeter of the quadrilateral is 156 inches, how long is the longest side?