

The M.E.S.S. model: a tool to Simplify Problem Solving

M - Model - visual depiction of the problem

E - Equation - mathematical sentence(s) describing the problem

S - Scratchwork - working out the equation(s)

S - Sentence - the solution in a complete sentence

3rd grade

1. In 3rd grade, Matthew read 4 times as many books as Solomon. Priscilla read 15 more books than Matthew. Together, they read 60 books. How many books did Priscilla read?

2. The total weight of a football and 10 tennis balls is 1 kg. If the weight of each tennis ball is 60 g, find the weight of the football.

4th grade

3. The number of cats was $\frac{4}{5}$ of the total number of dogs. There were 36 pets altogether. How many dogs were there?

4. Anita's height is 120 cm more than $\frac{1}{4}$ of her height. How tall is Anita?

5th grade

5. Sienna had twice as much money as Nico. Yili had one and a half times as much money as Sienna. Altogether, the three of them had \$90. How much money did Nico have?

6. Harper spent $\frac{1}{3}$ of her money on a toy horse and $\frac{2}{3}$ of the remainder on a soccer ball. She had \$8 left. How much money did she spend altogether?

6th grade

7. Jenson had \$85 and Ian had \$220. They were each given an equal amount of money. Then Ian had twice as much money as Jenson. How much money did each young man receive?

8. The ratio of the number of Court's pens to the number of Lillie's pens was 3:5. After Lillie gave 49 of her pens to Cordelia, she had half as many pens as Court. How many pens did Lillie have at first?

9. Having sold 60% of his fiction books, a bookstore owner had 6250 fiction books left. After 80% of the fiction books had been sold, the total money collected was \$40,000. How much did each book cost?