

Problem Solving
Math Homework
Guidelines

Dear Parents,

Math homework this year will consist of one UPSC math story problem each week. The homework will be handed out on Monday and is due at 8:00 a.m. on Friday of the same week. Please look over the completed work. Parent involvement is **important**. The problems will provide students the opportunity to think on a deeper level in order to problem solve math concepts we have covered in class. Each problem requires the student to complete several steps in order to fully understand the concept of problem solving.

The first step, **Problem**. The students are required to read the problem provided. Then they should underline the question only. Next, they should circle any important words or numbers in the question that will be needed to solve the problem. Then, they go back to the rest of the problem and continue to circle important words or numbers that will be useful in solving the problem. Lastly, they should cross out any extra information that may confuse them in solving the problem.

The second step, **Plan**. We will start the year showing the students how to use a "part, part, whole" model. The students write the numbers that they circled in this model.

The third step, **Solve**. Students are required to show their work to solve the problem in this box. For example: $8+6=14$.

The fourth step, **Check**. Students are required to write the problem in another way in order to check their answer.
Example: Change addition to subtraction, subtraction to addition, draw a picture, draw a number line, etc.

The fifth step, students must write a **complete** sentence at the bottom of the paper, using words only, that answers the problem.

A review of math facts will be on the back of the UPSC story problem page.

Students will turn in homework on Friday. It is very important that the homework be turned in on the date due. It may be used for "math talk" where students collaborate with their classmates on how they solved/thought through the problem. It is important for students to see that their peers may have used a different strategy to solve the problem. A grade may be taken later in the school year. If a grade is taken, points will be deducted for each day the homework is late.

Attached you will find an example of a math homework with all the steps completed. Your child will be taught in class how to complete the homework. The sample is to show you, the parent, what is required.

If you have any questions regarding the math homework, please do not hesitate to contact your child's teacher.

Sincerely,

The Second Grade Team

2nd grade example

UPSC Problem Solving

UNDERSTAND

Mrs. Miller had many colored flowers in her garden. She had 4 red roses, 8 orchids, and 6 marigolds. How many colored flowers were in her garden altogether?

PLAN

R IIIII
O IIIII III
M IIIII I

or

4	6	8
18		

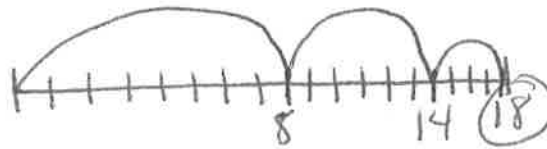
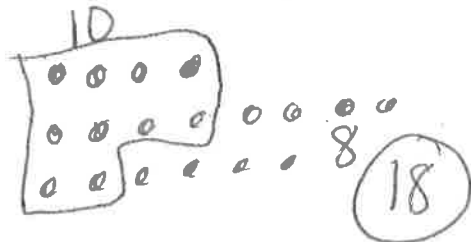
or

I will add 4, 8, and 6 to find the flowers altogether.

SOLVE

$$\begin{array}{r} 4 \\ 6 \\ + 8 \\ \hline 18 \end{array}$$

CHECK



$$\begin{array}{l} 8 + 6 = 14 \\ 14 + 4 = 18 \end{array}$$

UPSC Problem Solving

UNDERSTAND

Mrs. Miller had many colored flowers in her garden. She had 4 red roses, 8 orchids, and 6 marigolds. How many colored flowers were in her garden altogether?

Circle important information

PLAN

Draw a picture

or

Draw part/part/whole chart

or

Write an "I will" Statement

SOLVE

Use numbers that match the plan and solve for the final answer.

CHECK

Find another way to solve the problem

- fact family
- draw dots
- use number line

This is not the same as your plan. Choose another plan.