Math Kangaroo Class Level 3-4

Lesson 6:

Guessing and Checking

Warm up

Instruction

Guessing and Checking

Exit Ticket

Bonus Slides

Warm up

MK 2013 # 2

Aline writes a correct calculation. Then she covers two digits that are the same with stickers. Which digit is under the sticker?

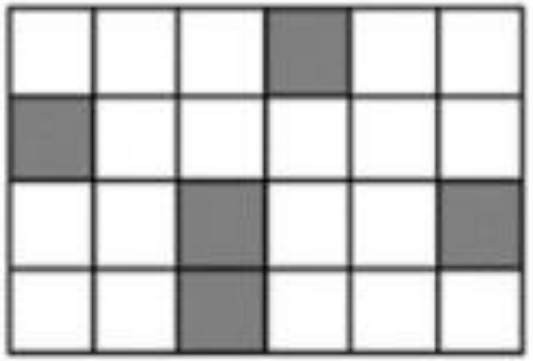
Guessing and Checking

- Let's play "Guess My Animal."

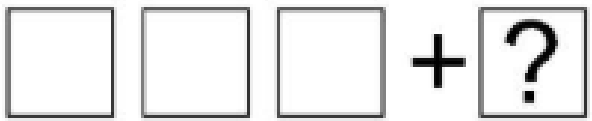
- An effective way to solve certain problems is to make a reasonable guess of the answer, then check the guess against the conditions of the problem.

- Even when your initial guess is incorrect, you make progress by eliminating one possible answer, thus obtaining other information that may lead to the correct answer. This strategy is also known as "guess, check, and revise."

1. How many white squares need to be shaded in the picture so that the number of shaded squares is equal to exactly half of the number of the white squares?



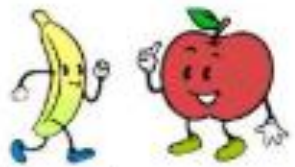
2. Steven wants to write each of the digits 2, 0, 1, and 9 in one of the boxes of the sum:



He wants to get the largest possible answer. Which digit can he write instead of the question mark?

3.

Together we cost 5 cents.

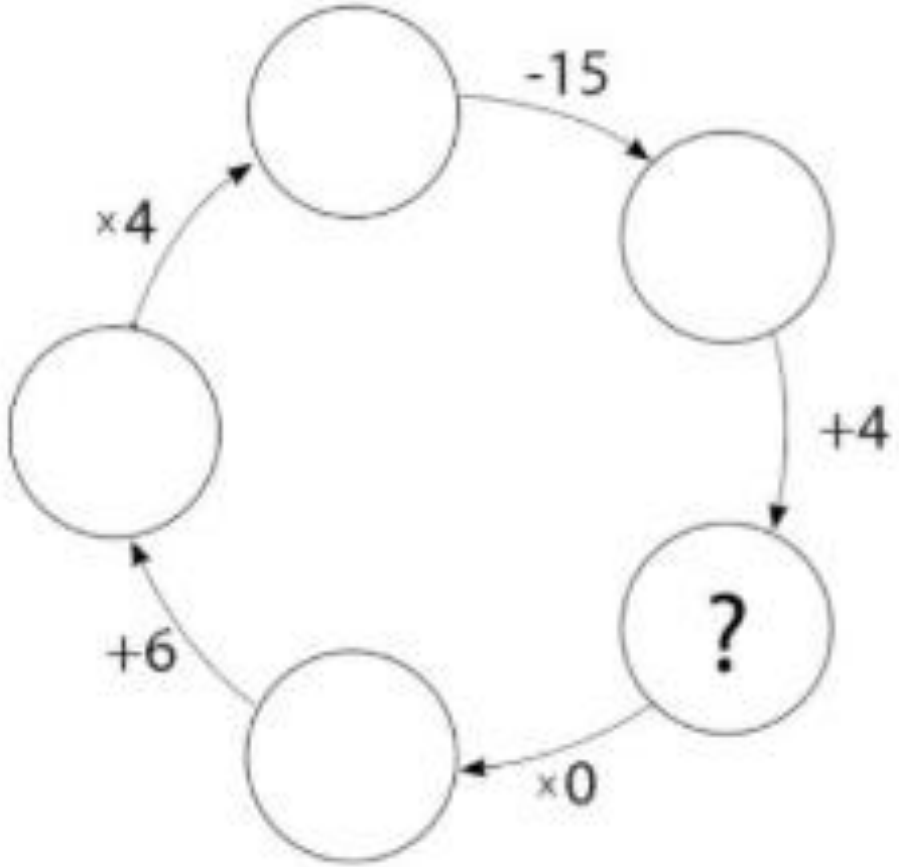


Together we cost 7 cents.

Together we cost 10 cents.

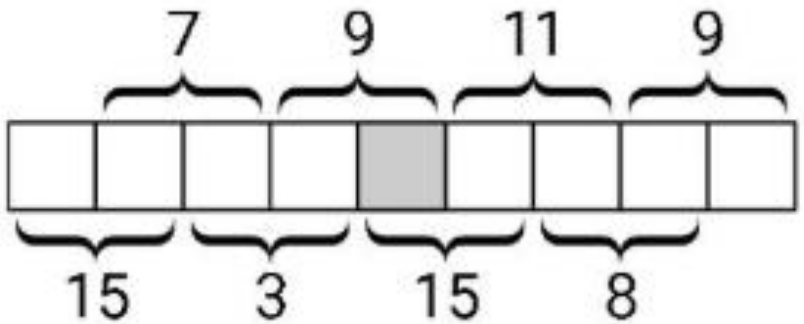
How much do we cost together?

4. Which number should be written in the circle with the question mark?

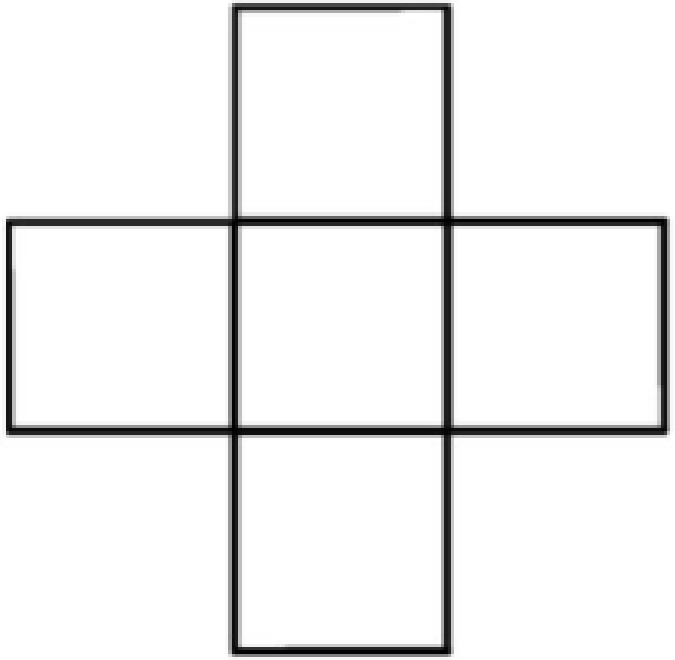


5. Anna, Beata, and Jack go to the same school. One day the librarian said to them, "Guess how many books we have in the school library." Anna said 2010, Beata said 1998, and Jack said 2015. It turned out that the number of books in the library differed from the numbers given by the children by 12, 7, and 5 (these numbers are not necessarily in the order they made their guesses). How many books are there in their school library?

6. The numbers 1 to 9 are placed in the squares shown, with a number in each square. The sums of all pairs of neighboring numbers are shown. Which number is in the shaded square?



7. The numbers 2, 3, 5, 6, and 7 are written in the squares of the cross (see figure) in such a way that the sum of the numbers in the row is equal to the sum of the numbers in the column. Which of the numbers can be written in the center square of the cross?



Bonus Question

MK 2021 # 23

Elena wants to write the numbers from 1 to 9 in the squares shown. The arrows always point from a smaller number to a larger one. She has already written 5 and 7. Which number should she write instead of the question mark?