



## Monday cup #14- Solution

**Posted on:** July, 01,2019

**Due on:** July, 07, 2019



### **Problem**

#### **Lower Elementary:**

**Question:** William has 3 fruit trees in his garden. He picks 8 apples from the apple tree, 6 pears from the pear tree, and 7 limes from the lime tree. How many pieces of fruit did William pick?

**Answer:** 21 pieces of fruit

**Solution:** To find the total, add the apples and the pears, and then add the limes:  $8 + 6 = 14$ . Then,  $14 + 7 = 21$ .

#### **Upper Elementary:**

**Question:** Harrison has a full 3-gallon watering can. He uses  $\frac{5}{8}$  of the water on the gardenias in his garden. How much water did the gardenias get?

**Answer:** 15 pints

**Solution:** First we converted the amount of water from gallons into pints because a pint is  $\frac{1}{8}$  of a gallon. Harrison had 24 pints of water. Then we found  $\frac{5}{8}$  of 24 and determined Harrison used 15 pints of water.

#### **Middle School:**

**Question:** Lily is making labels for the plants in her garden. Each label is made of a white 3"  $\times$  5" laminated against a colorful 5"  $\times$  8" card. What is the area of the front of each label that isn't covered by the white card?

**Answer:** 25 square inches

**Solution:** First, we need to find the area of the larger card. That's  $5 \times 8 = 40$  square inches. Next, we subtract the part that's covered by the white card, which is  $3 \times 5 = 15$  square inches. Then we subtract the area of the small card from the larger card, which gives us  $40 - 15 = 25$  square inches.

#### **Algebra and Up:**

**Question:** Cameron is selling flowers from his garden. By selling large bouquets for \$21 and small bouquets for \$15, he makes \$540. If he sells a total of 30 bouquets, how many large bouquets did Cameron sell?

**Answer:** 15 large bouquets

**Solution:** We can use the equations  $21L + 15S = 540$  and  $L + S = 30$  to solve for both variables. First, we solve for S in the second equation. That gives us that  $S = 30 - L$ . We can plug that value of S into the original equation, so  $21L + 15(30 - L) = 540$ . If we solve for L, we get 15.

### **There was no correct solution to problem 14**

### Rules

1. Anyone is eligible to participate. Each solution is to be the work of one individual without any input from faculty or others. An answer must be accompanied by appropriate justifications to be considered correct.
2. The solution is to be submitted with the solver's name, email, year in school (if applicable), local phone number, and local address. If you are submitting this for possible credit in a class, include your class number and instructor's name.
3. The solution is to be typed or legibly written. Solutions must be submitted to the by 2 p.m. on the due date.
4. Entries will be graded on clarity of exposition and elegance of solution. An award of **GEL10** will be given for the best correct solution. In the case of a two-way tie, the award will be split. If there are more than two best solutions, a drawing will be held to determine two award winners.
5. Graduate students, faculty, and members of the general public are encouraged to submit solutions, but they will not be considered.

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ἡμέρας τοῦ τσίβο, кубок понедельника, Monday cup, Coppa del lunedì, Coupe du lundi  
Solution for this problem can be submitted proveweek@gmail.com