

Problem of the Week

Problem A and Solution

Apple Picking

Problem

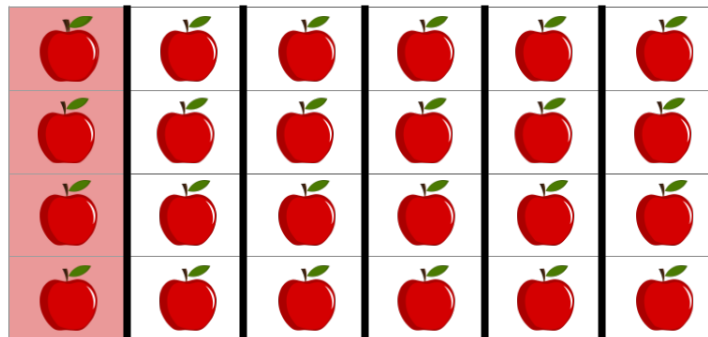
Caleb's family went apple picking. They came home with 24 apples.

- (a) They dried one sixth of the apples to make snacks. How many apples did they dry?
- (b) They used one third of the apples to make applesauce. It takes two apples to make one jar of applesauce. How many jars did they make?
- (c) They used one fourth of the apples to make two pies. How many apples were in each pie?
- (d) They saved the rest of the apples to eat. How many apples did they have to eat?

Solution

In each part, we will use a grid that has the 24 apples arranged in 4 rows and 6 columns, with 1 apple in each cell, and use this to divide the apples into smaller groups.

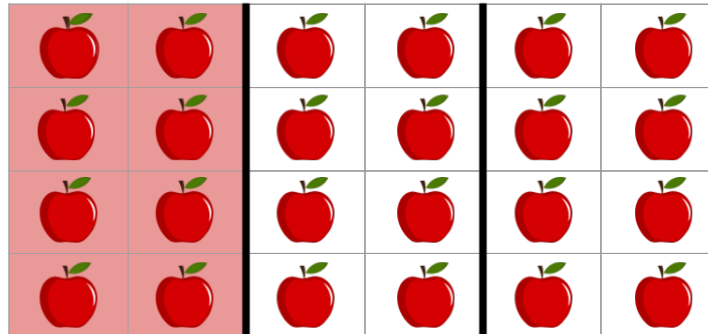
- (a) We divide the grid of apples into six equal groups by placing a dividing line between each column.



Since each group contains 4 apples, we know that 4 apples were dried for snacks.



- (b) We divide the grid of apples into three equal groups by placing a dividing line between the second and third column, and between the fourth and fifth column.

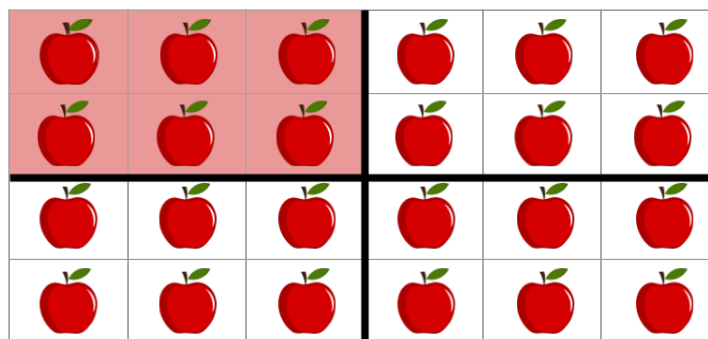


Since each group contains 8 apples, know that one third of the apples is 8 apples. Since it takes 2 apples to make one jar of applesauce, we can skip count by 2s to determine the number of jars they made. This is summarized in the table below.

Number of Apples	2	4	6	8
Number of Jars	1	2	3	4

Therefore, Caleb’s family made 4 jars of applesauce.

- (c) We divide the grid of apples into four equal groups by placing a dividing line between the third and fourth column, and between the second and third row.



Since each group contains 6 apples, we know that one fourth of the apples is 6 apples. Since they made 2 pies, then half of these apples were used in each pie. So there were 3 apples in each pie.

- (d) From the previous three parts, we know that the family used $4 + 8 + 6 = 18$ apples. This means they have $24 - 18 = 6$ apples left for eating.