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Problems Based on Hidden Information

For some problems, the information you need is not spelled out. But it is information you already know, such as a measurement or a unit of time. You need to translate hidden information in the problem into a number you can use. Think carefully about numbers and units and how they are used in a problem.

Try this problem. Think about words you need to change into numbers.

7 The hay comes in small rectangular bales that weigh about 80 pounds each. How many bales equal a ton?

A What do you want to find out?

_____

B What information do you know?

_____

C What operation do you need?

_____

D What information do you need to find the answer?

_____

E Change the hidden information into a number you can use. Then write an equation to solve the problem.

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Here's another problem to try on your own.

8 About how many pounds of hay does Asia eat a day?

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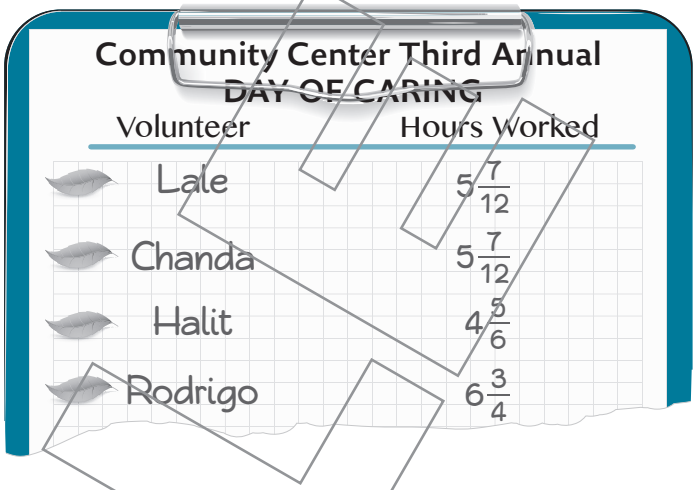
3 Volunteer Day

The Community Center sponsored a "Day of Caring." Volunteers signed up to rake leaves and do yard work for those who needed assistance. Volunteers could begin work as early as 8 A.M. and work until 4 P.M. Some of the volunteers are listed on this record sheet.

The volunteers put the leaves and trash into trash bags. The filled bags weighed a total of 400 pounds.



Solve each problem. If there is not enough information to solve it, tell what is needed.

1 How many hours did Lale and Chanda work altogether? Write your answer in simplest form.

A mixed number is a sum. You can break it apart and work with the whole numbers and fractions separately.

2 A total of 9 adults and young people volunteered. They worked an average of $5\frac{3}{4}$ hours per person. How many hours did the volunteers work in all?

3 How many more hours did the young people work than the adults?

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4 Allowing 45 minutes for lunch, how many hours was it possible for a volunteer to work in a day? Show your answer as a mixed number.

5 How many more hours and minutes did Rodrigo work than Halit?

When you add or subtract fractions, the denominators must be the same.

6 What was the average amount of time worked by the volunteers named in the chart?

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7 Of the garbage collected by the volunteers, $\frac{3}{5}$ was leaves. How many pounds of leaves did the volunteers collect?

8 Lale, Chanda, Halit, and Rodrigo together raked about $\frac{3}{10}$ of the garbage collected. Lale and Chanda both raked $\frac{2}{15}$ each, and Rodrigo raked 12 pounds more than Halit. How many pounds did each person rake? Explain how you found the answer.

What total amount was collected by the four volunteers?

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