## Worksheet 7 Real-World Problems: Multiplying and Dividing with Fractions

**Solve. Use models to help you.**

1. There are 144 pieces of fruit in a box. Of the fruit in the box, $\frac{1}{8}$ are red apples and $\frac{1}{4}$ are green apples. The rest are oranges.

   a. How many oranges are there altogether?

   $\frac{5}{8}$ = oranges  18×5 = 90

   $\frac{1}{8}$ = 18   $\frac{2}{8}$ = 36

   $\frac{2}{8} + \frac{1}{8} = \frac{3}{8}$   $\frac{1}{8}$ = red apples

   $\frac{8}{8} - \frac{3}{8} = \frac{5}{8}$

   $\frac{3}{8}$ = 54   $\frac{1}{4} \times 2 = \frac{2}{8}$ green apples

   There are 90 oranges altogether

   b. What fraction of the fruit are oranges?

   $\frac{5}{8}$   the fraction of the fruit are oranges are $\frac{5}{8}$,

2. A bakery had 54 rolls. Of the rolls that the bakery had, $\frac{1}{6}$ were sold in the morning and $\frac{1}{2}$ were sold in the evening.

   a. How many rolls were sold altogether?   54 ÷ 6 = 9

   9×4 = 36   $\frac{1}{2} = \frac{3}{6} + \frac{1}{6} = \frac{4}{6}$

   36 rolls were sold altogether   27

   b. How many rolls were not sold?

   18 rolls were not sold

   $\frac{6}{6} - \frac{4}{6} = \frac{2}{6}$   54 - 36 = 18   18 rolls not sold
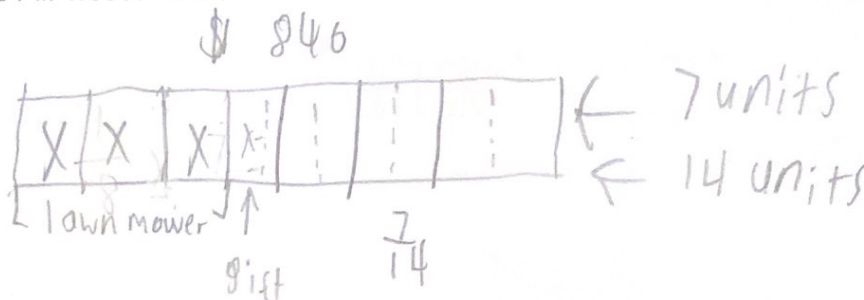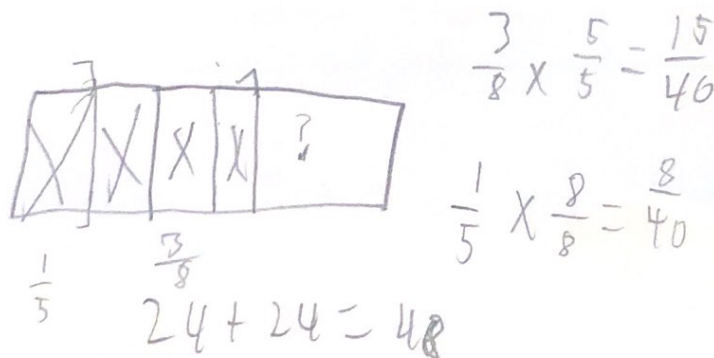
## Solve. Use models to help you.

3. Mr. Woods had \$840. He spent $\frac{3}{7}$ of the money on a lawn mower.
   He spent $\frac{1}{8}$ of the remaining money on a gift for his wife. How much
   money did Mr. Woods have left?

   \$ 846

   

   ← 7 units
   ← 14 units

   $\frac{7}{14}$

   lawn mower
   gift

   Mr. woods
   has \$420 left.

   $840 \div 2 = 420$

4. Rebecca had a piece of ribbon. She used $\frac{3}{8}$ of it to tie a package.
   She used $\frac{1}{5}$ of the remainder for a bookmark. Rebecca had
   24 centimeters of ribbon left. What was the length of ribbon
   Rebecca had at first?

   

   $\frac{1}{5}$
   $\frac{3}{8}$

   $\frac{3}{8} \times \frac{5}{5} = \frac{15}{40}$

   $\frac{1}{5} \times \frac{8}{8} = \frac{8}{40}$

   $24 + 24 = 48$

   Rebecca had 48 centimeters
   of ribbon at first.

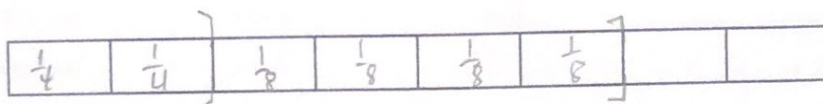## Complete each model to show the statements.

5.  A liter of milk is divided among 2 adults and 4 children. Each adult drinks
    $\frac{1}{4}$ liter and each child drinks $\frac{1}{8}$ liter.
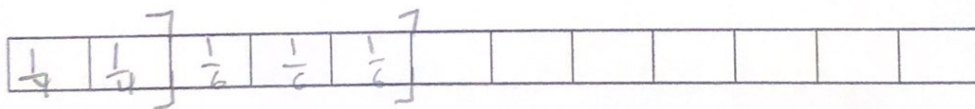
    $\frac{1}{8} \times 4 = \frac{4}{8} = \frac{1}{2}$

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | | |

$\frac{1}{4} \times 2 = \frac{2}{4} = \frac{1}{2}$          $\frac{1}{2} + \frac{1}{2} = 2$

6.  A pizza is divided and given to 3 boys and 2 girls. Each boy gets $\frac{1}{6}$ of a
    pizza and each girl gets $\frac{1}{4}$ of a pizza.

    $\frac{1}{4} \times 2 = \frac{2}{4} = \frac{1}{2}$

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | | | | | | | |

$\frac{1}{6} \times 3 = \frac{3}{6} = \frac{1}{2}$          $\frac{1}{2} + \frac{1}{2} = 1$

**Solve. Show your work.**

1 melon 5 Pieces $\frac{1}{5}$

7. James has 5 melons. Two of them are shared among 10 students. What fraction of a melon will each student get? Each student will get $\frac{1}{5}$.

The remaining melons are then divided into $\frac{1}{3}$ each. These pieces are shared equally among the students. How many students do not get a piece of these melons? 1 Student does not get a piece of these melons.

How much of a melon will each student get in total?

Every Student will get two pieces except 1 student who will get 1 Piece in total.