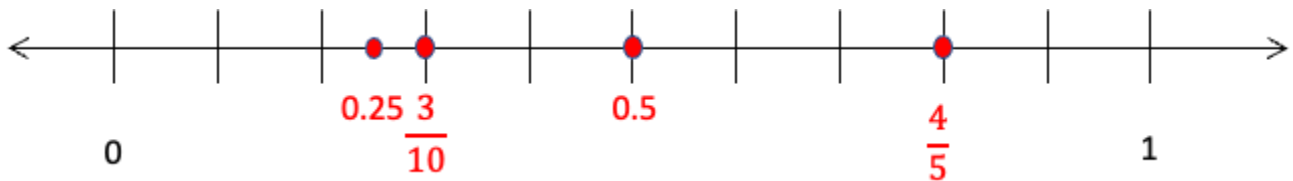## Module 1 Pre-Quiz

1. Plot and label the following points on the number line.

    A. 0.5

    B. $\frac{3}{10}$

    C. 0.25

    D. $\frac{4}{5}$

2. Write the following fractions as decimals.

    $\frac{1}{2}$ _0.5_ $\frac{1}{3}$ _0.33_

    $\frac{1}{4}$ _0.25_ $\frac{1}{10}$ _0.1_

3. This shape represents $\frac{1}{4}$. Draw $1\frac{1}{2}$.

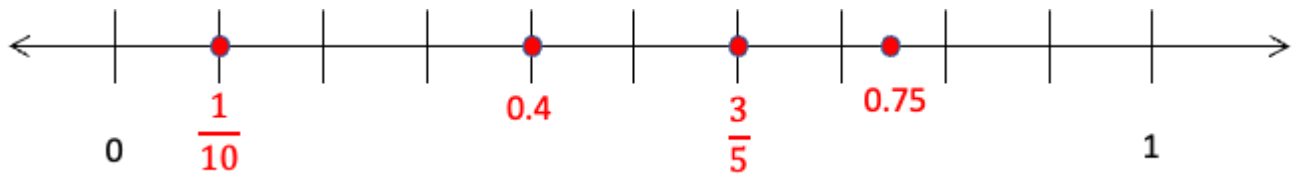## Module 1 Post-Quiz

1. Plot and label the following points on the number line.

    A. 0.75

    B. $\frac{1}{10}$

    C. 0.4

    D. $\frac{3}{5}$

2. Write the following fractions as decimals.

    $\frac{1}{3}$ __0.33__ $\frac{4}{8}$ __0.5__

    $\frac{3}{4}$ __0.75__ $\frac{1}{10}$ __0.1__

3. This shape represents $\frac{1}{3}$. Draw $1\frac{2}{6}$.

Module 2 Pre-Quiz

1. Brad, Ryan, and Grace ate a large pizza. Brad ate $\frac{1}{4}$ of the pizza, Ryan ate $\frac{1}{2}$ of the pizza, and Grace ate the rest. How much pizza did Grace eat?

   Grace ate $\frac{1}{4}$ of the pizza.

2. Logan was in a triathlon race. She had to swim for $\frac{9}{10}$ mile, bike for $24\frac{4}{5}$ miles and run for $6\frac{1}{4}$ miles. What was the total distance of the race? Show your work using decimals.

   $\frac{9}{10} + 24\frac{4}{5} + 6\frac{1}{4} = 0.9 + 24.8 + 6.25 = 31.95$

3. Write 4 fractions that are equivalent to $\frac{2}{3}$. *Answers may vary.*

   $\frac{4}{6}, \quad \frac{6}{9}, \quad \frac{8}{12}, \quad \frac{10}{15},$

4. Finnie is baking a cake. She needs $\frac{3}{4}$ cup of flour but she can't find the $\frac{3}{4}$ cup measuring cup. Finnie adds 2 scoops of flour using the $\frac{1}{2}$ cup measuring cup instead. Will that work for Finnie? Why or why not? What would you suggest she do? *No, that is 1 cup of flour which is too much flour. I would suggest she use 3 scoops of the $\frac{1}{4}$ cup measuring cup. (Answers may vary.)*

Module 2 Post-Quiz

1. Karen, Tim, and Jacki ate a box of cookies. Karen ate $\frac{1}{6}$ of the cookies, Tim ate $\frac{4}{12}$ of the cookies, and Jacki ate the rest. What fraction of the box of cookies did Jacki eat?

    Jacki ate $\frac{6}{12}$ or $\frac{1}{2}$ of the cookies.

2. Anjali was keeping track of how far she walked. She walked $1\frac{1}{10}$ miles on Monday, $4\frac{4}{5}$ miles on Wednesday, and $2\frac{1}{4}$ miles on Friday. What was the total distance she walked? Show your work using decimals.

    $1\frac{1}{10} + 4\frac{4}{5} + 2\frac{1}{4} = 1.1 + 4.8 + 2.25 = 8.15$ miles

3. Write 4 fractions that are equivalent to $\frac{6}{8}$. *Answers may vary.*

    $\frac{3}{4}, \quad \frac{12}{16}, \quad \frac{18}{24}, \quad \frac{24}{32}$

4. Mateo is making lemonade. He needs $1\frac{1}{4}$ cup of sugar. If he can only find the $\frac{1}{8}$ cup measuring cup. What would you suggest he do?

    I would suggest he use the $\frac{1}{8}$ cup measuring cup for 10 scoops of sugar.

    $\frac{1}{8} \times 10 = \frac{10}{8} = 1\frac{2}{8} = 1\frac{1}{4}$

Module 3 Pre-Quiz

1. Bella likes to run along the beach. She drinks $\frac{3}{4}$ cup of water for every mile she runs. If her water bottle holds 6 cups of water, how many miles can she run before her water bottle is empty? Prove your claim.

   $\frac{3}{4}$ x 8 = $\frac{24}{4}$ or 6 cups. This means she can run 8 miles before her water bottle is empty.
   6 ÷ $\frac{3}{4}$ = $\frac{24}{3}$ = 8. This means she can run 8 miles before her water bottle is empty.

2. Brian's mom spent $60 at the store. She spent $\frac{3}{4}$ of her money on clothes and the rest on shoes. How much money did she spend on clothes? Show your thinking. *Answers may vary.*

   $60 x $\frac{3}{4}$ = $\frac{180}{4}$ = $45   or $60 ÷ 4 = $15, so $\frac{1}{4}$ = $15 and $\frac{3}{4}$ = $45.
   She spent $45 on clothes.

3. Sarah is baking 8 batches of cookies. She needs $1\frac{1}{3}$ cups of butter for each batch. How much butter does she need to bake her cookies? Show your thinking.

   8 x $1\frac{1}{3}$ = 8 x $\frac{4}{3}$ = $\frac{32}{3}$ = $10\frac{2}{3}$ cups of butter.

Module 3 Post-Quiz

1. Aleki likes to run at the park. He drinks $\frac{2}{3}$ cup of water for every mile he runs. If his water bottle holds 6 cups of water, how many miles can he run before his water bottle is empty? Prove your claim.

   $\frac{2}{3}$ x 9 = $\frac{18}{3}$ or 6 cups. This means she can run 9 miles before her water bottle is empty.

   6 ÷ $\frac{2}{3}$ = $\frac{18}{2}$ = 9. This means she can run 9 miles before her water bottle is empty.

2. Brian's mom spent $40 at the grocery store. She spent $\frac{1}{4}$ of her money on fruits and vegetables and the rest on meat. How much money did she spend on fruits and vegetables? Show your thinking.

   $40 x $\frac{1}{4}$ = $\frac{40}{4}$ = $10   or $40 ÷ 4 = $10, so $\frac{1}{4}$ = $10, she spent $10 on fruits and vegetables

3. Sarah is baking 4 pans of brownies for a bake sale. She needs $1\frac{1}{3}$ cups of flour for each pan of brownies. How much flour does she need to bake all of the brownies? Show your thinking.

   4 x $1\frac{1}{3}$ = 4 x $\frac{4}{3}$ = $\frac{16}{3}$ = $5\frac{1}{3}$ cups of flour.

Module 4 Pre-Quiz

1. A small dog eats $\frac{3}{4}$ cup of food each day. How many servings are in a bag with 9 cups of food? Show your thinking. *Thinking may vary.*

   $9 \div \frac{3}{4}$ *= 12 servings*

2. Arman is planting a garden. The shaded part of the picture shows how much has already been planted. If he plants $\frac{1}{3}$ of the unplanted part tomorrow, how much of the total garden will be unplanted? Show your thinking. *Thinking may vary.*

   Arman's Garden
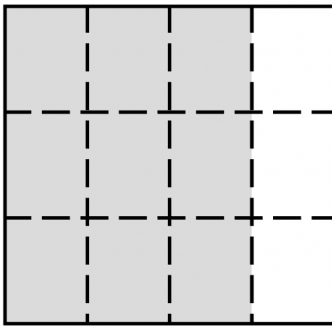
   $\frac{1}{3}$ X $\frac{3}{12}$ *=* $\frac{3}{36}$ *=* $\frac{1}{12}$ *tomorrow +* $\frac{9}{12}$ *already planted =*

   $\frac{10}{12}$ *already planted. That leaves* $\frac{2}{12}$ *to be planted.*

3. How many $\frac{1}{3}$ cup servings are in a 6 cup container of peanuts? Show your thinking.

   $6 \div \frac{1}{3}$ *= 18*

   Eighteen $\frac{1}{3}$ *cup servings are in a 6 cup container of peanuts*

Module 4 Post-Quiz

1. Jayme needs $\frac{1}{3}$ yard of ribbon for each hair bow she makes. How many hair bows can she make if she has 8 yards of ribbon? Show your thinking.

   If Jayme needs $\frac{1}{3}$ yard of ribbon for each hair bow, she will be able to make 24 hair bows.

   $$8 \div \frac{1}{3} = \frac{24}{1}$$

2. Aleki had a box of chocolate. The picture shows how much has already been eaten. If he gives away $\frac{1}{2}$ of what is left, what fraction of the total box of chocolate will he have left? Show your thinking.
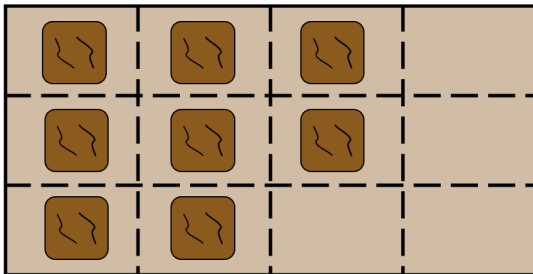
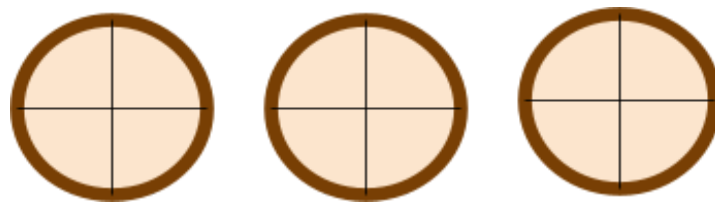 $$\frac{1}{2} \times \frac{8}{12} = \frac{8}{24} = \frac{4}{12} = \frac{1}{4}$$

3. How many $\frac{3}{4}$ cup servings are in a 6-cup bag of raisins? Show your thinking.

   $$6 \div \frac{3}{4} = 8 \text{ servings}$$

Module 5 Pre-Quiz

1. Mateo had 3 apple pies to share at his birthday party. There are 11 guests at the party plus Mateo. If he wants everyone to get an equal share and he wants the pies to be all gone. How many slices should he cut in each pie? Show your thinking.

Since there are 12 people, if Mateo cuts each pie into 4 pieces, everyone will get a piece of pie and it will all be gone.
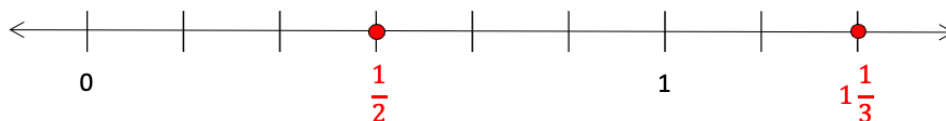
2. Jennifer wants to pour 8 glasses of lemonade from the pitcher of lemonade. If each glass hold $1\frac{1}{2}$ cups, how much lemonade will she need? Show your thinking.

    $8 \times 1\frac{1}{2} = 8 \times \frac{3}{2} = \frac{24}{2} = 12$ cups of lemonade

3. Draw a number line. Use dots to show the location of the product of these fractions.

$$4 \times \frac{2}{6} = \frac{8}{6} = 1\frac{2}{6} = 1\frac{1}{3}$$

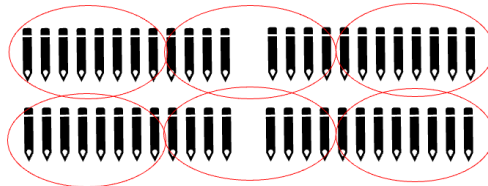$$2 \times \frac{3}{12} = \frac{6}{12} = \frac{1}{2}$$

Module 5 Post-Quiz

1. Cindy had 4 boxes of colored pencils. Each box has 12 pencils. If she wants to share the pencils equally with herself and her 5 friends. What fraction of the total number of colored pencils will each person get?

   There are a total of 48 pencils. 48 pencils ÷ 6 friends = 8 pencils each

   $\frac{8}{48} = \frac{1}{6}$

   Each friend will get $\frac{1}{6}$ of the pencils.

2. Kevin wants to add 4 gallons of water to his pool. If his pail holds $1\frac{3}{4}$ gallons, how many pails of water will he need? Show your thinking.

   $4 \times 1\frac{3}{4} = 4 \times \frac{7}{4} = \frac{28}{4} = 7$ pails of water

3. Draw a number line. Use dots to show the location of the product of these fractions.

   $3 \times \dfrac{3}{4} = \dfrac{9}{4} = 2\dfrac{1}{4}$

   $6 \times \dfrac{2}{8} = \dfrac{12}{8} = 1\dfrac{4}{8} = 1\dfrac{1}{2}$