ALBERT

Name _____ Date _____

Multiplying Fractions Word Problems Worksheet

Grade 5 · Common Core 5.NF.B.6

> Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

Practice

Builds the skill step by step.

1. A recipe uses $\frac{3}{4}$ cup of sugar. Ana makes $\frac{1}{2}$ of the recipe. How much sugar does she use?

2. A class has 24 students. $\frac{2}{3}$ of them ride the bus. How many students ride the bus?

3. A park trail is $\frac{4}{5}$ mile long. Leo walks $\frac{1}{2}$ of the trail. How far does he walk?

4. Each bag holds $\frac{3}{4}$ pound of nuts. How many pounds of nuts are in 6 bags? Write your answer as a mixed number.

5. Mia has $\frac{2}{3}$ of a pan of brownies. She gives $\frac{1}{4}$ of that amount to her brother. Which expression shows how much of the whole pan her brother gets?

   A. $\frac{1}{4} \times \frac{2}{3}$

   B. $\frac{2}{3} - \frac{1}{4}$

   C. $\frac{2}{3} + \frac{1}{4}$

   D. $4 \times \frac{2}{3}$

6. A rope is 10 feet long. Sam uses $\frac{3}{5}$ of the rope. How many feet does he use?

7. A cat eats $\frac{1}{3}$ can of food each day. How many cans does it eat in 5 days? Write your answer as a mixed number.

8. $\frac{5}{6}$ of a garden is planted. Tomatoes fill $\frac{1}{2}$ of the planted part. What fraction of the whole garden is tomatoes?

9. A water bottle holds $\frac{3}{4}$ liter. Kim drinks $\frac{2}{3}$ of the water in a full bottle. How much water does she drink?

10. One lap around a track is $\frac{1}{4}$ mile. Jo runs 9 laps. How far does she run? Write your answer as a mixed number.

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On Level

Grade-level practice.

1. A board is $2\frac{1}{2}$ feet long. Tim uses $\frac{3}{5}$ of the board. How many feet does he use? Write your answer as a mixed number.

2. A pancake recipe uses $1\frac{3}{4}$ cups of milk. How much milk is needed for 3 batches? Write your answer as a mixed number.

3. Rae earns 12 dollars an hour. She works $2\frac{1}{2}$ hours. How many dollars does she earn?

4. Ian walks $1\frac{1}{2}$ miles each day. Which expression shows how far he walks in 4 days?

   A. $4 \times 1\frac{1}{2}$

   B. $4 + 1\frac{1}{2}$

   C. $4 - 1\frac{1}{2}$

   D. $1\frac{1}{2} + 1\frac{1}{2}$

5. A jug has $2\frac{2}{3}$ quarts of juice. Max pours $\frac{3}{4}$ of the juice into cups. How many quarts does he pour?

6. There are 40 students in the band. $\frac{3}{8}$ of them play brass instruments. How many students play brass?

7. A puppy weighed $4\frac{1}{2}$ pounds. Now it weighs $2\frac{1}{3}$ times as much. How much does it weigh now? Write your answer as a mixed number.

8. $\frac{2}{3}$ of the books on a shelf are fiction. $\frac{3}{4}$ of the fiction books are mysteries. What fraction of all the books are mysteries?

9. A bike path is $5\frac{1}{3}$ kilometers long. Ella has ridden $\frac{3}{4}$ of it. How far has she ridden?

10. Which question can be answered with $\frac{2}{3} \times 12$?

    A. Ty has 12 stickers and then gets $\frac{2}{3}$ of a sticker more. How many does he have?

    B. Ty has 12 stickers and gives away $\frac{2}{3}$ of them. How many does he give away?

    C. Ty has 12 stickers and 3 friends. How many does each friend get?

    D. Ty has 12 stickers and gives away 2. How many are left?

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Challenge

Multi-step and word problems that stretch it.

1. Ava had 18 dollars. She spent $\frac{1}{3}$ of it on lunch. Then she spent $\frac{1}{2}$ of the money she had left on a book. How many dollars does she have now?

2. A recipe for 4 servings uses $2\frac{1}{4}$ cups of flour. Ken wants 6 servings, which is $1\frac{1}{2}$ times the recipe. How much flour does he need? Write your answer as a mixed number.

3. A rectangular garden is $6\frac{1}{2}$ yards long and $4\frac{2}{5}$ yards wide. What is its area? Write your answer as a mixed number.

4. Jay reads for $\frac{3}{4}$ hour each day for 5 days. Kia reads for $1\frac{1}{3}$ hours each day for 3 days. Who reads longer in all, and by how much?

5. Lina says $\frac{1}{2}$ of $\frac{3}{4}$ pound of cheese is $\frac{3}{2}$ pounds. Find the correct amount.

6. A relay is $12\frac{1}{2}$ miles long. A team runs $\frac{3}{5}$ of it before lunch and the rest after lunch. How many miles do they run after lunch?

7. $\frac{3}{4}$ of the students in a class are girls. $\frac{2}{3}$ of the girls play soccer. What fraction of the whole class is girls who play soccer?

   A. $\frac{1}{2}$

   B. $\frac{5}{7}$

   C. $\frac{6}{7}$

   D. $\frac{17}{12}$

8. A painter mixes $1\frac{1}{2}$ cans of blue paint with $\frac{2}{3}$ as much white paint. How many cans of paint does she use in all? Write your answer as a mixed number.

9. Ms. Park buys $3\frac{1}{3}$ pounds of grapes. Grapes cost 3 dollars per pound. How many dollars does she pay?

10. A snail crawls $\frac{2}{5}$ meter each minute. How far does it crawl in $7\frac{1}{2}$ minutes?