

Multiplying Fractions & Mixed Numbers: Real-World Problems

Fractions • Grade 5 • Word Problems • Set B • CCSS 5.NF.6

Name: _____

Date: _____

Read each word problem carefully, multiply the fractions or mixed numbers, and write your answer with its unit.

1. A pitcher holds $1 \frac{1}{4}$ gallons of lemonade. A camp counselor pours out $\frac{1}{2}$ of the pitcher. How many gallons were poured out?

2. A baker uses $\frac{2}{3}$ cup of butter for one batch of cookies. The baker wants to make $2 \frac{1}{2}$ batches. How many cups of butter are needed?

3. A piece of ribbon is $3 \frac{1}{2}$ feet long. Elena cuts off $\frac{4}{5}$ of it to decorate a gift. How long is the piece Elena cuts off?

4. Ben walks $3 \frac{1}{4}$ miles to school each day. How far does Ben walk in 2 days?

5. Each student needs $\frac{3}{4}$ of a sheet of construction paper for an art project. If there are 24 students, how many sheets are needed in all?

6. A garden plot is $\frac{5}{6}$ yard long and $\frac{1}{2}$ yard wide. What is the area of the garden plot?

7. A fish tank holds $9\frac{3}{5}$ gallons of water. It is currently $\frac{1}{2}$ full. How many gallons of water are in the tank?

8. A rectangular room is $4\frac{1}{2}$ feet wide and $1\frac{1}{4}$ feet long. What is the area of the room?

9. A recipe calls for $\frac{1}{4}$ cup of sugar. If Yara wants to make $\frac{2}{3}$ of the recipe, how much sugar does Yara need?

10. A runner jogs $\frac{7}{8}$ of a mile each morning. How many miles does the runner jog in 4 days?

11. A box of cereal weighs $3\frac{2}{3}$ pounds. A school orders 12 boxes. What is the total weight of the cereal?

12. A pitcher holds $3\frac{1}{2}$ gallons of lemonade. A camp counselor pours out $\frac{1}{3}$ of the pitcher. How many gallons were poured out?

13. A baker uses $\frac{1}{2}$ cup of butter for one batch of cookies. The baker wants to make $3\frac{1}{4}$ batches. How many cups of butter are needed?

14. A piece of ribbon is $3\frac{1}{2}$ feet long. Ivan cuts off $\frac{1}{4}$ of it to decorate a gift. How long is the piece Ivan cuts off?

15. Ivan walks $2\frac{1}{4}$ miles to school each day. How far does Ivan walk in 4 days?

16. Each student needs $\frac{1}{3}$ of a sheet of construction paper for an art project. If there are 15 students, how many sheets are needed in all?

17. A garden plot is $\frac{3}{4}$ yard long and $\frac{7}{8}$ yard wide. What is the area of the garden plot?

18. A fish tank holds $6\frac{4}{5}$ gallons of water. It is currently $\frac{2}{3}$ full. How many gallons of water are in the tank?

19. A rectangular room is $3\frac{1}{2}$ feet wide and $3\frac{1}{4}$ feet long. What is the area of the room?

20. A recipe calls for $\frac{3}{4}$ cup of sugar. If Ben wants to make $\frac{2}{3}$ of the recipe, how much sugar does Ben need?

21. A runner jogs $\frac{5}{8}$ of a mile each morning. How many miles does the runner jog in 4 days?

22. A box of cereal weighs $2 \frac{1}{4}$ pounds. A school orders 11 boxes. What is the total weight of the cereal?

Answer Key

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|-------------------------------|---------------------------|---------------------------------|
| 1. $\frac{5}{8}$ gallon | 9. $\frac{1}{6}$ cup | 17. $\frac{21}{32}$ square yard |
| 2. $\frac{5}{3}$ cups | 10. $\frac{7}{2}$ miles | 18. $\frac{68}{15}$ gallons |
| 3. $\frac{14}{5}$ feet | 11. 44 pounds | 19. $\frac{91}{8}$ square feet |
| 4. $\frac{13}{2}$ miles | 12. $\frac{7}{6}$ gallons | 20. $\frac{1}{2}$ cup |
| 5. 18 sheets | 13. $\frac{13}{8}$ cups | 21. $\frac{5}{2}$ miles |
| 6. $\frac{5}{12}$ square yard | 14. $\frac{7}{8}$ foot | 22. $\frac{99}{4}$ pounds |
| 7. $\frac{24}{5}$ gallons | 15. 9 miles | |
| 8. $\frac{45}{8}$ square feet | 16. 5 sheets | |