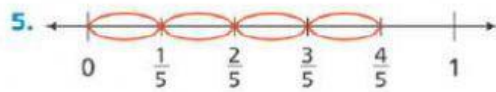


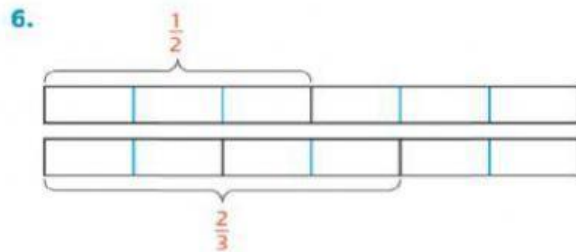
Lesson 1-5 Divide Fractions by Fractions

Do You Know How?

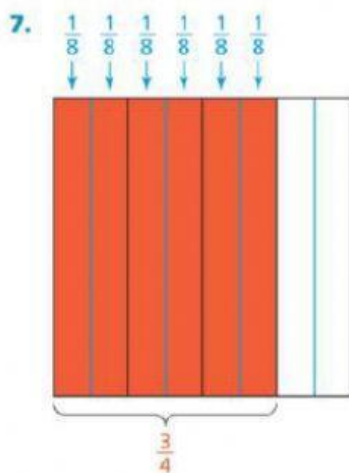
In 5–7, write a division sentence to represent each model.



$$\frac{\boxed{}}{\boxed{}} \div \frac{\boxed{}}{\boxed{}} = \boxed{}$$



$$\frac{\boxed{}}{\boxed{}} \div \frac{\boxed{}}{\boxed{}} = \boxed{}$$



$$\frac{\boxed{}}{\boxed{}} \div \frac{\boxed{}}{\boxed{}} = \boxed{}$$

In 8–11, find each quotient.

8. $\frac{3}{4} \div \frac{2}{3}$

$$\frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

9. $\frac{3}{12} \div \frac{1}{8}$

$$\frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}} = \boxed{}$$

10. $\frac{1}{2} \div \frac{4}{5}$

$$\frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

11. $\frac{7}{10} \div \frac{2}{5}$

$$\frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

Practice & Problem Solving

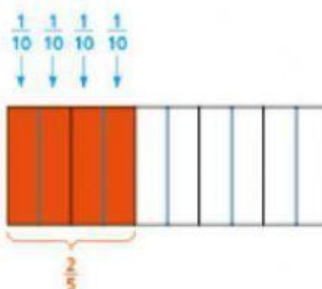


In 12 and 13, complete each division sentence using the models provided.

12. $\frac{1}{3} \div \frac{1}{12} = \square$



13. $\frac{2}{5} \div \frac{1}{10} = \square$



In 14–25, find each quotient.

14. $\frac{2}{3} \div \frac{1}{3}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \square$

15. $\frac{1}{2} \div \frac{1}{16}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \square$

16. $\frac{1}{4} \div \frac{1}{12}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \square$

17. $\frac{6}{7} \div \frac{3}{7}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \square$

18. $\frac{5}{14} \div \frac{4}{7}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$

19. $\frac{5}{8} \div \frac{1}{2}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \square \frac{\square}{\square}$

20. $\frac{7}{12} \div \frac{3}{4}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$

21. $\frac{2}{7} \div \frac{1}{2}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square}$

22. $\frac{4}{9} \div \frac{2}{3}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$

23. $\frac{7}{12} \div \frac{1}{8}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \square \frac{\square}{\square}$

24. $\frac{3}{10} \div \frac{3}{5}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$

25. $\frac{2}{5} \div \frac{1}{8}$

$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \square \frac{\square}{\square}$

26. **Be Precise** A large bag contains $\frac{12}{15}$ pound of granola. How many $\frac{1}{3}$ -pound bags can be filled with this amount of granola? How much granola is left over?

$\frac{\square}{\square} \div \frac{\square}{\square} = \frac{\square}{\square} = \square \frac{\square}{\square}$



27. **Higher Order Thinking** Find $\frac{3}{5} \div \frac{2}{3}$. Then draw a picture and write an explanation describing how to get the answer.

$\frac{\square}{\square} \div \frac{\square}{\square} = \frac{\square}{\square} = \square \frac{\square}{\square}$

28. The area of a rectangular painting is $\frac{1}{6}$ square yard. The width is $\frac{2}{3}$ yard. What is the length of the painting? Use the formula $A = \ell \times w$.

$L = A \div w$

$L = \frac{\square}{\square} \div \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$

29. Solve for n in the equation $\frac{13}{16} \div \frac{1}{6} = n$.

$n = \frac{\square}{\square} \div \frac{\square}{\square} = \frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square}{\square} = \square \frac{\square}{\square}$

30. **Model with Math** A cafeteria uses $\frac{1}{6}$ pound of coffee to fill a large coffee dispenser. The cafeteria has $\frac{2}{3}$ pound of coffee to use.

- b. Write a division sentence that describes the model and tells how many dispensers can be filled.

$$\frac{\square}{\square} \div \frac{\square}{\square} = \frac{\square}{\square} = \square$$



31. **Model with Math** A full load for a small truck to haul is $\frac{1}{2}$ ton of gravel. The truck is hauling $\frac{1}{2}$ ton of gravel.

- a. Complete the model below to find how much of a full load the truck is hauling.
- b. Write a division sentence that describes the model and tells how much of a full load the truck is hauling.

$$\frac{\square}{\square} \div \frac{\square}{\square} = \frac{\square}{\square}$$



32. **Use Structure** How many $\frac{1}{4}$ -inch pieces can be cut from a piece of metal $\frac{5}{8}$ inch long?

$$\frac{\square}{\square} \div \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$$

33. Write a problem that could be solved by finding $\frac{5}{8} \div \frac{2}{3}$.

Assessment Practice

34. Which division sentence is shown by the model at the right?

- A) $\frac{2}{3} \div \frac{1}{9} = 6$
- B) $\frac{1}{9} \div \frac{2}{3} = \frac{1}{6}$
- C) $6 \div \frac{1}{9} = 54$
- D) $6 \div \frac{2}{3} = 9$

