Using Models to Multiply Fractions

SKILLS

Use the models to find each product.

1. \[
\frac{1}{2} \times \frac{1}{3} =
\]

2. \[
\frac{3}{5} \times \frac{3}{4} =
\]

3. \[
\frac{2}{3} \times \frac{4}{5} =
\]

4. \[
\frac{3}{4} \times \frac{5}{6} =
\]

5. \[
\frac{1}{4} \times \frac{2}{5} =
\]

6. \[
\frac{4}{7} \times \frac{2}{3} =
\]

7. \[
\frac{1}{3} \times \frac{1}{6} =
\]

8. \[
\frac{1}{4} \times \frac{1}{2} =
\]

9. \[
\frac{1}{2} \times \frac{3}{8} =
\]

10. \[
\frac{1}{2} \times \frac{3}{5} =
\]

11. \[
\frac{2}{3} \times \frac{1}{6} =
\]

12. \[
\frac{1}{4} \times \frac{1}{3} =
\]

13. \[
\frac{3}{6} \times \frac{2}{3} =
\]

14. \[
\frac{2}{3} \times \frac{2}{3} =
\]

15. \[
\frac{1}{2} \times \frac{2}{3} =
\]

16. \[
\frac{1}{3} \times \frac{5}{6} =
\]
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CRITICAL THINKING AND PROBLEM SOLVING

Write and solve the multiplication problem shown by each model.

17. \[
\begin{array}{c c c c c c}
\square & \square & \square & \square & \square & \square \\
\square & \square & \square & \square & \square & \square
\end{array}
\]
\[
\text{ } \times \text{ } \text{ } = \text{ } \text{ } = \text{ } \text{ }
\]

18. \[
\begin{array}{c c c c c c}
\square & \square & \square & \square & \square & \square \\
\square & \square & \square & \square & \square & \square
\end{array}
\]
\[
\text{ } \times \text{ } \text{ } = \text{ } \text{ } = \text{ } \text{ }
\]

19. \[
\begin{array}{c c c c c c}
\square & \square & \square & \square & \square & \square \\
\square & \square & \square & \square & \square & \square
\end{array}
\]
\[
\text{ } \times \text{ } \text{ } = \text{ } \text{ } = \text{ } \text{ }
\]

20. \[
\begin{array}{c c c c c c}
\square & \square & \square & \square & \square & \square \\
\square & \square & \square & \square & \square & \square
\end{array}
\]
\[
\text{ } \times \text{ } \text{ } = \text{ } \text{ } = \text{ } \text{ }
\]

Use the given models to solve each problem. Write each answer in simplest form.

21. You have \( \frac{3}{4} \) pound of cheese. \( \frac{1}{2} \) of it is cheddar. How much of the cheese is cheddar?
   You have ________ pound of cheddar.

22. You have finished \( \frac{1}{3} \) of your \( \frac{3}{4} \) hour band rehearsal. How much time is left?
   You have ________ hour of rehearsal left.

23. \( \frac{3}{8} \) of the people at the pet show had dogs. \( \frac{1}{2} \) of those have competed in dog shows before. How many dog owners have competed before?
   ________ of the dogowners have competed before.