

REVIEW: Dividing Whole Numbers and Fractions

Name _____

Key Concept and Vocabulary

$$4 \div \frac{2}{3} = 4 \times \frac{3}{2} = \frac{4 \times 3}{2} = \frac{12}{2} = 6$$

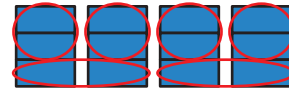
Invert and multiply.

$$\frac{2}{3} \div 4 = \frac{2}{3} \times \frac{1}{4} = \frac{2 \times 1}{3 \times 4} = \frac{2}{12} = \frac{1}{6}$$

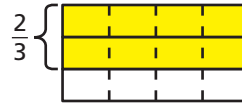
Divide whole numbers and fractions.



Visual Models



There are 6 two-thirds in 4 wholes.



There are 4 two-twelfths, or one-sixths, in $\frac{2}{3}$.

Skill Examples

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

2. $4 \div \frac{1}{2} = 4 \times 2 = 8$

3. $\frac{3}{4} \div 3 = \frac{3}{4} \times \frac{1}{3} = \frac{3 \times 1}{4 \times 3} = \frac{3}{12} = \frac{1}{4}$

4. $\frac{1}{3} \div 5 = \frac{1}{3} \times \frac{1}{5} = \frac{1 \times 1}{3 \times 5} = \frac{1}{15}$

Application Example

5. You have $\frac{1}{2}$ gallon of milk. You pour the milk equally into 8 glasses. How much milk is in each glass?

$$\frac{1}{2} \div 8 = \frac{1}{2} \times \frac{1}{8} = \frac{1 \times 1}{2 \times 8} = \frac{1}{16}$$

There is $\frac{1}{16}$ gallon of milk in each glass.



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Find the quotient.

6. $2 \div \frac{1}{5} = \underline{\frac{10}{1}}$

7. $3 \div \frac{1}{2} = \underline{\frac{6}{1}}$

8. $6 \div \frac{3}{4} = \underline{\frac{24}{3}, \text{ or } 8}$

9. $4 \div \frac{5}{6} = \underline{\frac{24}{5}}$

10. $6 \div \frac{4}{5} = \underline{\frac{30}{4}, \text{ or } \frac{15}{2}}$

11. $10 \div \frac{3}{8} = \underline{\frac{80}{3}}$

12. $\frac{1}{4} \div 3 = \underline{\frac{1}{12}}$

13. $\frac{1}{3} \div 2 = \underline{\frac{1}{6}}$

14. $\frac{5}{8} \div 5 = \underline{\frac{5}{40}, \text{ or } \frac{1}{8}}$

15. $\frac{3}{5} \div 6 = \underline{\frac{3}{30}, \text{ or } \frac{1}{10}}$

16. $\frac{3}{4} \div 7 = \underline{\frac{3}{28}}$

17. $\frac{4}{5} \div 10 = \underline{\frac{4}{50}, \text{ or } \frac{2}{25}}$

Compare.

18. $5 \div \frac{1}{4} \boxed{=} 4 \div \frac{1}{5}$

19. $\frac{7}{8} \div 6 \boxed{>} \frac{7}{8} \div 8$

20. $2 \div \frac{3}{2} \boxed{<} 3 \div \frac{2}{3}$

21. **SMOOTHIES** You need $\frac{3}{4}$ cup of strawberries to make a smoothie. How many smoothies can you make with 3 cups of strawberries? 4 smoothies

22. **WATERING PLANTS** You have 5 gallons of water. You use $\frac{1}{2}$ of the water to water a tree. Then you divide the rest of the water equally among 10 plants. How much water does each plant get? $\frac{1}{4}$ gallon of water