

REVIEW: Dividing Fractions

Name _____

Key Concept and Vocabulary

$$\frac{2}{3} \div \frac{1}{2} = \frac{2}{3} \cdot \frac{2}{1} = \frac{2 \cdot 2}{3 \cdot 1} = \frac{4}{3}$$

Invert and multiply.

Divide fractions.



Visual Model

There are 2 “one-thirds” in two-thirds.

$$\frac{2}{3} \div \frac{1}{3} = \frac{2}{3} \cdot \frac{3}{1} = 2$$



Skill Examples

1. $\frac{2}{5} \div \frac{1}{5} = \frac{2}{5} \cdot \frac{5}{1} = \frac{2 \cdot 5}{5 \cdot 1} = 2$

2. $\frac{2}{5} \div 5 = \frac{2}{5} \cdot \frac{1}{5} = \frac{2 \cdot 1}{5 \cdot 5} = \frac{2}{25}$

3. $\frac{9}{4} \div \frac{3}{4} = \frac{9}{4} \cdot \frac{4}{3} = \frac{9 \cdot 4}{4 \cdot 3} = 3$

4. $6 \div \frac{1}{2} = \frac{6}{1} \cdot \frac{2}{1} = \frac{6 \cdot 2}{1 \cdot 1} = 12$

Application Example

5. You drive 25 miles in one-half hour. What is your average rate?

$$25 \div \frac{1}{2} = \frac{25}{1} \cdot \frac{2}{1} = 50 \text{ mi/h} \quad r = \frac{d}{t}$$

❖ Your average rate is 50 miles per hour.

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Check your answers at BigIdeasMath.com

Find the quotient. Write your answer in simplified form.

6. $\frac{3}{5} \div \frac{1}{5} = \underline{\hspace{2cm}}$

7. $4 \div \frac{1}{2} = \underline{\hspace{2cm}}$

8. $\frac{2}{3} \div \frac{1}{6} = \underline{\hspace{2cm}}$

9. $\frac{1}{6} \div \frac{2}{3} = \underline{\hspace{2cm}}$

10. $\frac{2}{3} \div 2 = \underline{\hspace{2cm}}$

11. $\frac{3}{4} \div 4 = \underline{\hspace{2cm}}$

12. $\frac{3}{7} \div \frac{3}{7} = \underline{\hspace{2cm}}$

13. $\frac{3}{7} \div \frac{7}{3} = \underline{\hspace{2cm}}$

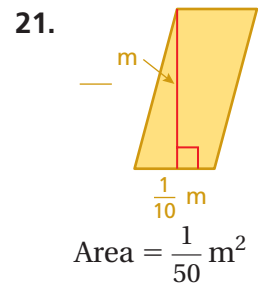
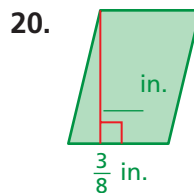
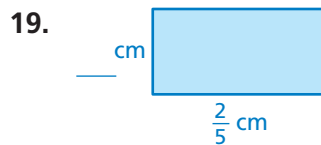
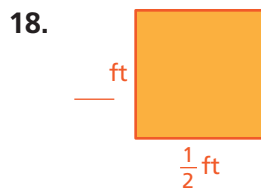
14. $5 \div \frac{1}{2} = \underline{\hspace{2cm}}$

15. $\frac{9}{4} \div \frac{1}{4} = \underline{\hspace{2cm}}$

16. $\frac{1}{4} \div \frac{1}{2} = \underline{\hspace{2cm}}$

17. $\frac{3}{11} \div 11 = \underline{\hspace{2cm}}$

Find the height of the rectangle or parallelogram.



22. **SPEED** You drive 15 miles in one-fourth hour. What is your average speed? _____

23. **MAGNETIC TAPE** A refrigerator magnet uses $\frac{5}{8}$ inch of magnetic tape. How many refrigerator magnets can you make with 10 inches of magnetic tape? Explain.