ex: $\frac{3}{4}\left(\frac{8}{9}\right)\left(\frac{1}{2}\right)$

$= \frac{1}{3}$

cross-cancel

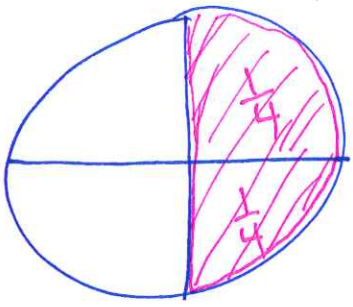
40. $\frac{-15}{28} \cdot \frac{7}{9} \cdot \frac{-18}{35}$

$= \frac{3}{14}$

$\frac{13}{4} \cdot \frac{4}{39}$

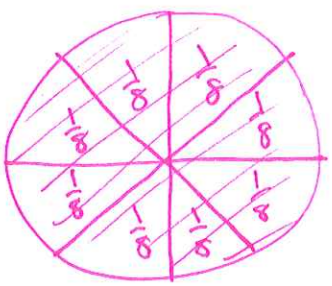
3.3 Dividing Fractions

How many of the fractions fit?



How many $\frac{1}{4}$'s fit in $\frac{1}{2}$? $= 2$

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



How many $\frac{1}{8}$'s fit in one whole? $= 8$

$1 \div \frac{1}{8} = \frac{1}{1} \cdot \frac{8}{1} = \frac{8}{1} = 8$

To divide fractions, multiply by the reciprocal of the second fraction

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

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

sit · flip

cut something in half

$$8 \div 2 = 4$$

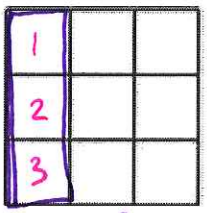
$$\frac{8}{1} \cdot \frac{1}{2} = 4$$

$$= \frac{8}{2} = 4$$

Practice 3 - 3: Dividing Fractions Name Key

Division - How many fractions fit in a fraction? Shade the figures to model dividing fractions. Simplify the answer if possible.

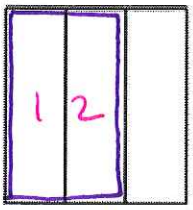
1. $\frac{1}{3} \div \frac{1}{9}$
How many ninths fit in one third?



= 3

$\frac{1}{3} \cdot \frac{9}{1} = \frac{3}{1} = 3$

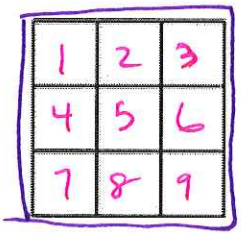
2. $\frac{2}{3} \div \frac{1}{3}$
How many thirds fit In 2/3?



= 2

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

3. $1 \div \frac{1}{9}$
How many ninths fit in one whole?



= 9

$\frac{1}{1} \cdot \frac{9}{1} = \frac{9}{1} = 9$

Write the reciprocal of the number.

4. $\frac{2}{7}$ $\frac{7}{2}$

5. $\frac{4}{1}$ $\frac{1}{4}$

6. $-\frac{1}{3}$ $-\frac{3}{1}$

Write each division statement as the equivalent multiplication statement. Then multiply and simplify.

7. $\frac{1}{7} \div \frac{3}{7}$

$\frac{1}{7} \cdot \frac{7}{3} = \frac{1}{3}$

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

$\frac{5}{2} \cdot \frac{4}{1} = \frac{10}{1} = 10$

9. $\frac{2}{9} \div \left(-\frac{5}{9}\right)$

$\frac{2}{9} \cdot \left(-\frac{9}{5}\right) = -\frac{2}{5}$

10. $-\frac{1}{3} \div \frac{5}{6}$

$-\frac{1}{3} \cdot \frac{6}{5} = -\frac{2}{5}$

11. $\frac{5}{12} \div \frac{7}{8}$

$\frac{5}{8} \cdot \frac{8}{7} = \frac{5}{7}$

12. $-4 \div \left(-\frac{2}{5}\right)$

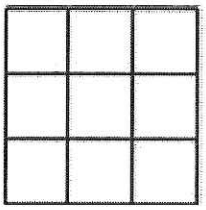
$-\frac{4}{1} \cdot -\frac{5}{2} = \frac{10}{1}$

$= 10$

Practice 3 - 3: Dividing Fractions Name _____

Division - How many fractions fit in a fraction? Shade the figures to model dividing fractions. Simplify the answer if possible.

1. $\frac{1}{3} \div \frac{1}{9}$
How many ninths fit in one third?



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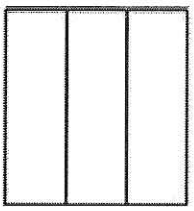
2. $\frac{2}{3} \div \frac{1}{3}$
How many thirds fit In 2/3?



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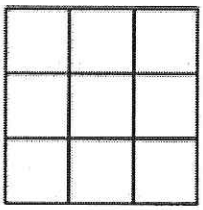
3. $1 \div \frac{1}{9}$
How many ninths fit in one whole?



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Write the reciprocal of the number.

4. $\frac{2}{7}$

5. 4

6. $-\frac{1}{3}$

Write each division statement as the equivalent multiplication statement. Then multiply and simplify.

7. $\frac{1}{7} \div \frac{3}{7}$

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

9. $\frac{2}{9} \div \left(-\frac{5}{9}\right)$

10. $-\frac{1}{3} \div \frac{5}{6}$

11. $\frac{5}{12} \div \frac{7}{8}$

12. $-4 \div \left(-\frac{2}{5}\right)$