

HW SOL 2.5

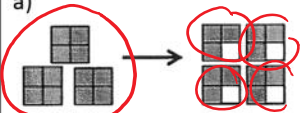
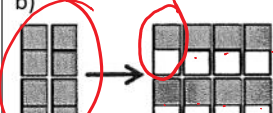
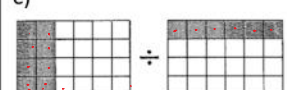
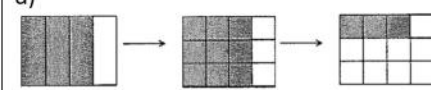
November 16, 2016 10:28 AM

Name: _____

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Math 8 Dividing Two Fractions with Manipulatives:

1. Given each of the following diagrams, write the division statement and determine the answer. Write the answer in lowest form:

<p>a)</p>  <p>$3 \div \frac{3}{4} = 4$</p>	<p>b)</p>  <p>$4 \div (\frac{1}{2}) = 8$</p>
<p>c)</p>  <p>$\frac{2}{6} \div \frac{1}{4} = \frac{8}{6} = \frac{4}{3}$</p>	<p>d)</p>  <p>$\frac{3}{4} \div 3 = \frac{3}{12}$</p>

2. Divide each of the following statements and write your answer in lowest form:

<p>a) $21 \div \frac{3}{4}$</p> <p>$21 \times \frac{4}{3} = 28$</p>	<p>b) $\frac{3}{16} \div \frac{9}{12}$</p> <p>$\frac{3}{16} \times \frac{12}{9} = \frac{1}{4}$</p>	<p>c) $\frac{1}{3} \div \frac{11}{12}$</p> <p>$\frac{1}{3} \times \frac{12}{11} = \frac{4}{11}$</p>
<p>c) $12 \div \frac{1}{3} \div \frac{1}{2}$</p> <p>$12 \times \frac{3}{1} \times \frac{2}{1} = 72$</p>	<p>d) $\frac{2}{3} \div \frac{12}{15}$</p> <p>$\frac{2}{3} \times \frac{15}{12} = \frac{5}{6}$</p>	<p>e) $\frac{4}{21} \div \frac{16}{7}$</p> <p>$\frac{4}{21} \times \frac{7}{16} = \frac{1}{12}$</p>
<p>f) $3\frac{3}{5} \div \frac{15}{27}$</p> <p>$\frac{18}{5} \times \frac{27}{15} = \frac{162}{25}$</p>	<p>g) $8 \div \frac{4}{5} \div \frac{3}{4} \div \frac{2}{3}$</p> <p>$8 \times \frac{5}{4} \times \frac{4}{3} \times \frac{3}{2} = 20$</p>	<p>h) $\frac{1}{3} \div \frac{4}{27} \div \frac{16}{21}$</p> <p>$\frac{1}{3} \times \frac{27}{4} \times \frac{21}{16} = \frac{189}{64}$</p>
<p>i) $1\frac{2}{3} \div 2\frac{3}{6} \div 6\frac{1}{4}$</p> <p>$\frac{5}{3} \div \frac{15}{6} \div \frac{25}{4}$</p> <p>$\frac{5}{3} \times \frac{6}{15} \times \frac{4}{25} = \frac{8}{75}$</p>	<p>j) $\frac{2}{3} \div 2\frac{3}{4} \div 7\frac{1}{3}$</p> <p>$\frac{2}{3} \div \frac{11}{4} \div \frac{22}{3}$</p> <p>$\frac{2}{3} \times \frac{4}{11} \times \frac{3}{22} = \frac{4}{121}$</p>	<p>k) $7\frac{3}{4} \div 5\frac{1}{3} \div 1\frac{1}{2}$</p> <p>$\frac{31}{4} \div \frac{16}{3} \div \frac{3}{2}$</p> <p>$\frac{31}{4} \times \frac{3}{16} \times \frac{2}{3} = \frac{31}{32}$</p>

3. Draw a diagram for the following statement:

a) $\frac{10}{12} \div \frac{1}{3}$

$30 \div 12 = \frac{30}{12} = \frac{5}{2}$

b) $\frac{6}{7} \div \frac{3}{4}$

$24 \div 21 = \frac{24}{21} = \frac{8}{7}$

4. After a birthday party, $\frac{5}{8}$ of a pizza was leftover. The next day, 3 friends decide to split the pizza evenly. How much of the original pizza would each person have?

$\frac{5}{8} \div 3$

$\frac{5}{8} \times \frac{1}{3} = \frac{5}{24}$

$\frac{5}{24}$

5. An earthquake in Japan was $2\frac{1}{2}$ times greater than the earthquake in Italy. Another earthquake in Chile was

$11\frac{2}{3}$ greater than the earthquake in Italy. How many times greater was the earthquake in Chile compared to

Japan?

$\frac{\text{JAPAN}}{\text{ITALY}} = 2\frac{1}{2}$

$\frac{\text{CHILE}}{\text{ITALY}} = 11\frac{2}{3}$

$\frac{\text{CHILE}}{\text{JAPAN}} = 11\frac{2}{3} \div 2\frac{1}{2}$

=

6. A song on your iPhone is $3\frac{3}{4}$ minutes long. If you have $9\frac{2}{3}$ minutes, how many times can you listen to the song?

$9\frac{2}{3} \div 3\frac{3}{4} =$

$\frac{29}{3} \div \frac{15}{4}$

$\frac{29}{3} \times \frac{4}{15} = \frac{116}{45}$

$= 2.77\overline{7} \text{ times}$

7. Divide the following and express your answer as a mixed fraction:

$\frac{\frac{1}{2} + (\frac{3}{4} \times \frac{2}{1})}{(\frac{1}{6} + \frac{2}{3}) \times \frac{5}{3}}$

$= \frac{\frac{1}{2} + (\frac{3}{2})}{(\frac{1}{6} + \frac{4}{6}) \times \frac{5}{3}}$

$= \frac{(\frac{4}{2})}{(\frac{5}{6} \times \frac{5}{3})}$

$= \frac{(\frac{4}{2})}{(\frac{25}{18})} = \frac{4^2}{2^1} \times \frac{18}{25} = \frac{36}{25}$

$\frac{\frac{1}{2} + (\frac{3}{4} \div \frac{1}{2})}{(\frac{1}{6} + \frac{2}{3}) \div \frac{3}{5}}$