

Lesson 99	Name _____	Date _____	Homework
Calculating equivalent fractions using multiplication			
There are 3 fractions that can be used to refer to the portion of the figures on the right that are circles. Can you name them? <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> $\frac{1}{2}$ </div> <div style="text-align: center;"> $\frac{1}{4}$ </div> <div style="text-align: center;"> $\frac{2}{8}$ </div> </div>			
Can you name 2 equivalent fractions that can be used to refer to the portion of the figures that are squares? <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> $\frac{1}{2}$ </div> <div style="text-align: center;"> $\frac{1}{4}$ </div> <div style="text-align: center;"> $\frac{2}{8}$ </div> </div>			
If the numerator and the denominator of a particular fraction are multiplied by the same number, the resulting fraction will be an equivalent fraction. Check the examples. <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div>① $\frac{1 \times 2}{2 \times 2} = \frac{2}{4}$</div> <div>② $\frac{1 \times 4}{2 \times 4} = \frac{4}{8}$</div> <div>③ $\frac{1 \times 2}{4 \times 2} = \frac{2}{8}$</div> </div>			
For each problem, complete the equivalent fraction. <div style="display: flex; flex-wrap: wrap; padding: 10px;"> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ④ $\frac{2}{3} = \frac{4}{\square}$ Since 4 is 2×2, in order to make an equivalent fraction, the denominator has to be multiplied by 2 also. $\frac{2 \times 2}{3 \times 2} = \frac{4}{6}$ </div> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ⑤ $\frac{3 \times 3}{4 \times 3} = \frac{9}{12}$ </div> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ⑥ $\frac{1 \times 2}{6 \times 2} = \frac{2}{12}$ </div> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ⑦ $\frac{3 \times 2}{5 \times 2} = \frac{6}{10}$ </div> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ⑧ $\frac{4 \times 3}{7 \times 3} = \frac{12}{21}$ </div> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ⑨ $\frac{3 \times 2}{4 \times 2} = \frac{6}{8}$ </div> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ⑩ $\frac{1 \times 2}{3 \times 2} = \frac{2}{6}$ </div> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ⑪ $\frac{5 \times 3}{6 \times 3} = \frac{15}{18}$ </div> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ⑫ $\frac{2 \times 3}{3 \times 3} = \frac{6}{9}$ </div> <div style="width: 33%; border: 1px dashed gray; padding: 5px; margin: 5px;"> ⑬ $\frac{5 \times 2}{8 \times 2} = \frac{10}{16}$ </div> </div>			
		A $9 \frac{5}{6}$ $3 \frac{1}{6}$ $4 \frac{1}{6}$ $+ 2 \frac{3}{6}$ $9 \frac{5}{6}$	
		B 25 In an hour, a runner might travel _____. $3 \times (4 \times 3) = \overset{12}{6} \times \overset{6}{(2 \times 3)}$ $36 = 6 \times 6$ 13 centimeters 15 ounces $\overset{9}{5} + (4 + 5) = 3 + (4 + 7)$ $5 + 9 = 14$ 14 6 $+ 5$ 25	
		C 25 Four pies are cut into fourths. How many pieces will there be? $4 \times 4 = 16$ 16 Identify 2 perpendicular lines. 5. \overline{RS} and \overline{MN} 6. \overline{NM} and \overline{RM} $8 \div 4 = 2$ $2 + 1 = 3$ 8 quarts 1 gallon = <u>3</u> gallons	
		D 159 <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> 12 miles $\begin{array}{r} 12 \\ \times 3 \\ \hline 36 \\ \hline 36 \\ \hline 36 \\ \hline 36 \\ \hline 36 \end{array}$ </div> <div style="text-align: center;"> 9 yd $\begin{array}{r} 9 \\ \times 9 \\ \hline 81 \\ \hline 81 \\ \hline 81 \\ \hline 81 \end{array}$ </div> <div style="text-align: center;"> 7 km $\begin{array}{r} 14 \\ 7 \\ \hline 14 \\ 7 \\ \hline 14 \\ 7 \\ \hline 14 \\ 7 \\ \hline 42 \end{array}$ </div> </div> area = 36 sq miles area = 81 sq yards perimeter = 42 km	

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Guided Practice 99			
Circle the denominator of the fraction in the set with the greatest value. $(\frac{1}{1}, \frac{1}{2}, \frac{3}{5}, \frac{4}{3}, \frac{7}{8})$ \downarrow \downarrow 1 $1 \frac{1}{3}$ Circle the prime number. (15, 2 , 9, 14)			
quadrilaterals <u>6</u> polygons <u>9</u> parallelograms <u>4</u> rectangles <u>3</u>		A 22 $\begin{array}{r} 368 \\ 47 \\ 2,095 \\ + 96 \\ \hline 2,606 \end{array}$ $\begin{array}{r} 4,032 \\ -1,706 \\ \hline 2,326 \end{array}$	
Round to the nearest thousand. $965 \rightarrow 1,000$ $2,903 \rightarrow 3,000$ $629 \times 5 = 3,145$ $209 \times 8 = 1,672$ $1 \text{ m} = \underline{100} \text{ cm}$		B 4,937 $\begin{array}{r} 2,606 \\ 2,326 \\ 3 \\ + 2 \\ \hline 4,937 \end{array}$ E 551 $\begin{array}{r} 257 \\ 3 \\ + 291 \\ \hline 551 \end{array}$	
Mark has half as many marbles as Pete. Together they have 12 marbles. How many marbles does Pete have? $4 + 8 = 12$ 8 marbles		C 24 $\frac{91}{100}$ $3.04 = 3 \frac{4}{100}$ $2.87 = 2 \frac{87}{100}$ If the diameter of a circle is 8 ft, the radius will be <u>4 ft</u> . $8 \div 2 = 4$ F 159 $\begin{array}{r} 2,606 \\ 2,326 \\ 3 \\ + 2 \\ \hline 4,937 \end{array}$ $\begin{array}{r} 291 \\ 5 \\ + 551 \\ \hline 846 \end{array}$	
This is _____ triangle. 4. an isosceles 5. an equilateral 6. a scalene		Which figure is congruent to _____? 5. 6. 7. What are the prime factors of 20? $20 = 2 \times 10 = 2 \times 2 \times 5 = 2, 2, 5$ 36 $\begin{array}{r} 36 \\ \times 4 \\ \hline 144 \end{array}$ 4 yards = 144 inches	
One-fourth of Alvin's 28 toys are trucks. How many of his toys are not trucks? $28 \div 4 = 7$ 21 are not trucks		What is the area of a square that measures 9 cm on one side? $9 \times 9 = 81$ 81 sq cm	
On a coordinate grid, what is the distance from C (5, 8) to D (5, 1)? $8 - 1 = 7$ 7		H 109 $\begin{array}{r} 21 \\ 81 \\ + 7 \\ \hline 109 \end{array}$	