U1B – Fractions

Name: _____

Instructions:

Using a pencil, complete the following questions as you work through the related lessons. Show ALL work as is explained in the lessons. Do your best and ask questions if you don't understand a concept

1.5 Introduction to Multiplying Fractions

1. Write the reciprocal for each of the following:

a) 5	b) $\frac{3}{5}$	c) $\frac{1}{3}$
d) 12	e) $2\frac{3}{5}$	f) $2\frac{1}{4}$
g) $\frac{11}{16}$	h) $2\frac{3}{8}$	i) $1\frac{4}{15}$

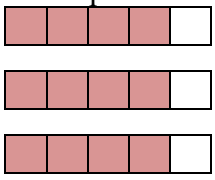
2. Convert the following to improper fractions.

a) $9\frac{3}{4}$	b) $8\frac{2}{7}$	c) $4\frac{1}{3}$
d) 12	e) $5\frac{3}{5}$	f) $2\frac{1}{4}$
g) $4\frac{1}{6}$	h) $10\frac{3}{8}$	i) $1\frac{4}{11}$

3. Multiply the following. Express your answer as a mixed number with the fraction in lowest terms

a) $9 \times \frac{3}{4}$	b) $8 \times \frac{2}{7}$	c) $4 \times \frac{1}{3}$
d) $12 \times \frac{2}{3}$	e) $\frac{3}{5} \times 5$	f) $2 \times \frac{1}{4}$
g) $\frac{1}{6} \times 7$	h) $10 \times \frac{4}{5}$	i) $1 \times \frac{4}{11}$

4. What multiplication question would this represent?



Perform the multiplication below. Show all work. Be sure to express all answers in lowest terms

5. $\frac{2}{5} \times \frac{3}{5}$

6. $\frac{3}{10} \times \frac{5}{9}$

7. $\frac{1}{2} \times \frac{2}{9}$

8. $\frac{3}{14} \times \frac{16}{17}$

9. $10 \times \frac{1}{5}$

10. $\frac{3}{4} \times \frac{16}{17}$

11. $\frac{3}{4} \times \frac{20}{27}$

12. $8 \times \frac{1}{6}$

13. $\frac{3}{5} \times \frac{10}{21}$

14. $\frac{2}{7} \times \frac{21}{26}$

1.6 Multiply Mixed Numbers

Perform the multiplication below. Show all work. Be sure to express all answers in lowest terms

1. $\frac{2}{5} \times 8\frac{1}{2}$

2. $7\frac{1}{6} \times \frac{3}{4}$

3. $1\frac{5}{9} \times 6\frac{4}{8}$

4. $4\frac{1}{2} \times 5\frac{3}{6}$

5. $\frac{4}{7} \times 6\frac{1}{2}$

6. $2\frac{2}{5} \times \frac{20}{21}$

7. $\frac{5}{9} \times 3\frac{3}{10}$

8. $3\frac{1}{3} \times 2\frac{2}{5}$

9. $\frac{4}{9} \times 5\frac{1}{4}$

10. $3\frac{1}{6} \times \frac{3}{7}$

1.7 Divide Fractions

1. Write the reciprocals of these fractions. Change mixed numbers to improper fractions first.

a.	$\frac{4}{8}$	b.	$\frac{7}{11}$	c.	$\frac{5}{2}$
d.	$\frac{1}{4}$	e.	$1\frac{5}{7}$	f.	$2\frac{3}{4}$

2. Divide the following fractions. Remember to rewrite as multiplication by the reciprocal

a. $\frac{3}{4} \div \frac{1}{9}$

b. $\frac{7}{8} \div \frac{4}{5}$

c. $\frac{5}{7} \div \frac{1}{2}$

d. $\frac{1}{3} \div \frac{4}{5}$

e. $\frac{4}{9} \div \frac{4}{5}$

f. $\frac{3}{5} \div 6$

g. $3 \div \frac{1}{5}$

h. $\frac{4}{7} \div \frac{2}{3}$

1.8 Divide Mixed Numbers

1. Divide the following fractions. Remember to rewrite as multiplication by the reciprocal

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

b. $1\frac{1}{2} \div \frac{3}{6}$

c. $2\frac{4}{5} \div \frac{1}{6}$

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

e. $2\frac{1}{3} \div 4\frac{1}{2}$

f $2 \div 3\frac{2}{7}$

g. $1\frac{1}{3} \div 4$

h $12\frac{2}{3} \div 5\frac{1}{3}$

2. Terry worked 6 ¾ hours each day during the summer. At this rate how many hours did she work in 5 days?

3. 342 men, women and children attended the fair. Of this number, 1/6 were men. How many men attended the fair?

Of the remaining women and children, 2/5 were women. How many were women?

4. How many pieces of wire 2 ½ cm long, can be cut from a roll of wire 58 cm long?

5. Marty swam 2 ¾ laps in 5 ½ minutes. How long did it take him to swim one lap?

6. Cathy practices the piano for a total of 6 hours each week. If she practices for ¾ hour each time, how many times each week does she have to practice?

7. Create and solve a word problem that can be solved by dividing 5 by 1/3. (The answer should be 15) Show the solution.

1.9 Order of Operations - Fractions

Perform the operations in the correct order. Show your steps

1. $12 - \left(\frac{8}{5} + 3 \div \frac{2}{3}\right)$	2. $\left(\frac{9}{2} + \frac{5}{2}\right) \div \frac{11}{2} \div \frac{1}{5}$

3. $\frac{1}{2} \div \frac{9}{4} \times \left(11 - \frac{4}{3}\right)$	4. $\frac{11}{2} + \frac{9}{2} - (3 - 2)$
5. $10 + 4 - \frac{3}{2} - \frac{9}{2}$	6. $2 \times \frac{1}{3} \div 2 \times \frac{6}{5}$
7. $\left(\frac{11}{3} - \frac{7}{3} + 2\right) \div \frac{2}{5}$	8. $2 \div (8 \times 8 - 2)$

Answers to selected questions:

1.5 Multiply Fractions
1. a) 1/5 d) 1/12 e)13/5 2 a)39/4 c)13/3 e) 28/5 3.a) 6 ¾ e) 3 g) 1 1/6
4. 3 x 4/5 4. 5. 6/25 8. 1/9 10. 2 12 5/9 14 2/7

1.6 Multiply Mixed Numbers
1. 2 2/5 3. 10 1/9 5. 3 5/7 7. 1 5/6 9. 2 1/3

1.7 Divide Fractions
3. a) 8/4 c) 2/5 e) 7/12 4. a) 6 ¾ c)1 3/7

1.8 Divide Mixed Numbers

1. a) 4/85 c)16 4/5 2. 33 ¾ hours 4. 23 1/5 6. 8

1.9 Order of Operation – Fractions

1. 59/10 3. 58/27 5. 8 7. 25/3