Name _____ Class _____ Date _____

Multiplying Fractions and Decimals

Use the instructions below to remind you of the proper procedures. Show all work.

To multiply fractions, multiply the numerators and then multiply the denominators. To multiply mixed numbers, change each mixed number to a fraction greater than one before multiplying. In both cases, simplify by looking for factors than make "one."

To multiply decimals, multiply as with whole numbers. In the product, the number of decimal places is equal to the total number of decimal places in the multiplied numbers. Sometimes zeros need to be added to place the decimal point.

Example 2: Multiply $3\frac{1}{3} \cdot 2\frac{1}{2}$

Solution:

$$3\frac{1}{3} \cdot 2\frac{1}{2} \Rightarrow \frac{10}{3} \cdot \frac{5}{2} \Rightarrow \frac{10 \cdot 5}{3 \cdot 2} \Rightarrow \frac{5 \cdot \cancel{2} \cdot 5}{3 \cdot \cancel{2}} \Rightarrow \frac{25}{3} \text{ or } 8\frac{1}{3}$$

Example 3: Multiply 12.5 · 0.36

Solution:

12.5	(one decimal place)
x0.36	(two decimal places)
750	
3750	
4.500	(three decimal places)

2. $0.21 \cdot 3.42$

4. $\frac{5}{6} \cdot \frac{3}{8}$

6. $\frac{7}{10} \cdot \frac{3}{4}$

8. $6.57 \cdot 2.8$

10. $2.9 \cdot 0.056$

12. $3\frac{1}{7} \cdot 1\frac{2}{5}$

14. $\frac{3}{5} \cdot \frac{9}{13}$

16. $2\frac{1}{3} \cdot 4\frac{4}{5}$

18. $\frac{3}{8} \cdot \frac{5}{9}$

20. $421 \cdot 0.00005$