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Multiply

$$2\frac{+1}{3} \bullet 3\frac{+3}{4}$$

$$\frac{7}{3} \times \frac{15}{4} = \frac{105}{12}$$

$$8\frac{9}{12} \div 3 \quad \left(8\frac{3}{4}\right)$$

$$\frac{5}{9} \bullet 4$$

$$\frac{5}{9} \times \frac{4}{1} = \frac{20}{9}$$

$$\begin{array}{r} 2 \\ 9 \overline{)20} \\ \underline{-18} \\ 2 \end{array}$$

$$\left(2\frac{2}{9}\right)$$

Advanced Math 6

Name Homework ID: _____

Assignment

Date _____ Period _____

Find each product.

1) $\frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$

2) $1\frac{3}{5} \times \frac{7}{4} = 2\frac{4}{5}$

3) $2\frac{1}{2} \times \frac{1}{2} = 1\frac{1}{4}$

4) $3\frac{3}{5} \times \frac{8}{5} = 5\frac{19}{25}$

$$\rightarrow 5) 3\frac{3}{4} \times 2 = 7\frac{1}{2}$$

$$\frac{15}{4} \times \frac{2}{1}$$

6) $\frac{1}{6} \times \frac{3}{5} = \frac{1}{10}$

$$\frac{15}{4} \times \frac{2}{1}$$

$$\star 7) 5 \times \frac{2}{3} = 3\frac{1}{3}$$

$$\frac{30}{4} \div 2$$

8) $3\frac{3}{4} \times \frac{2}{3} = 2\frac{1}{2}$

$$\frac{15}{2} \quad \left(7\frac{1}{2}\right)$$

9) $1\frac{2}{3} \times \frac{1}{2} = \frac{5}{6}$

10) $2\frac{4}{5} \times 3\frac{1}{3} = 9\frac{1}{3}$

Dividing Fractions: ~~multiply~~ the first fraction by the ~~reciprocal~~ of the second fraction

Reciprocal: the numerator and the denominator switch places. Fractions must be ~~proper or improper~~ to find a reciprocal.

Use the "KISS" method to divide fractions

$$\frac{2}{3} \div \frac{3}{5} \rightarrow \frac{2}{3} \times \frac{5}{3} = \frac{10}{9} = \left(1\frac{1}{9}\right)$$

K I S S
K: keep
I: \times
S: switch
S: switch

Name:	Date:
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Topic:	Class:
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Main Ideas/Questions	Notes/Examples
Dividing Fractions	1 Write all mixed numbers as improper fractions.
	2 Change the division symbol to multiplication and FLIP the second fraction to its reciprocal (KISS!)
	3 Multiply the numerators to get the new numerator. Multiply the denominators to get the new denominator.
	4 Simplify (if needed).
Examples	<p>1. $3 \div \frac{1}{4}$</p> <p>$\frac{3}{1} \div \frac{1}{4}$</p> <p>KISS</p> <p>$\frac{3}{1} \times \frac{4}{1}$</p> <p>$\frac{12}{1}$</p> <p>12</p>
	<p>2. $\frac{8}{5} \div 2\frac{2}{3}$</p> <p>$\frac{8}{5} \div \frac{8}{3}$</p> <p>KISS</p> <p>$\frac{8}{5} \times \frac{3}{8}$</p> <p>$\frac{24}{40}$</p> <p>$\frac{3}{5}$</p>
	<p>3. $1\frac{1}{7} \div \frac{1}{4}$</p>
	<p>4. $12 \div 1\frac{1}{2}$</p>
	<p>5. $3\frac{1}{3} \div \frac{4}{21}$</p>
	<p>6. $8\frac{1}{4} \div 6$</p>
	<p>7. $2\frac{1}{4} \div 1\frac{1}{6}$</p>
	<p>8. $\frac{3}{4} \div 2\frac{2}{5}$</p>

	9. $3\frac{3}{7} \div \frac{6}{11}$	10. $7\frac{1}{7} \div 4$
	11. $20 \div \frac{5}{9}$	12. $10\frac{5}{6} \div \frac{5}{8}$
Applications	13. Bill has a ladder that is $8\frac{1}{2}$ feet tall. The ladder has 6 equal spaces between the rungs. How large is each space?	14. After a party in her class, Mrs. Jones has $3\frac{2}{3}$ pounds of fruit left. She splits the fruit into $\frac{2}{3}$ pound groups. How many groups will she have?
	15. A group of friends are running a relay race that covers $3\frac{1}{2}$ miles. If each person runs $\frac{1}{2}$ mile, how many runners are there?	16. Fifteen songs that are all the same length are performed during a chorus concert. If the concert lasts 27 minutes and 30 seconds, how long is each song?
Summary: _____		

