Name _____

1-1 Reteach to Build Understanding

Operations on Real Numbers

1. The sum of a rational number and an irrational number is an irrational number. The product a non-zero rational number and an irrational number is an irrational number. The product of two rational numbers is a rational number. Draw a line to classify the result of each operation as a rational number or an irrational number.

$5 + \sqrt{19}$ rational number

$\frac{3}{7} + \frac{9}{5}$ irrational number

$\sqrt{6} \cdot 6$

2. Determine whether the result of the operation will be rational or irrational. Fill in *rational* or *irrational* in each blank.

	1st Number	Operation	2nd Number		Result
a.	$\frac{3}{4}$	+	$\frac{2}{3}$	=	$1\frac{5}{12}$
	rational	+	_____	=	rational
b.	$\frac{3}{4}$	+	$\frac{\sqrt{2}}{3}$	=	$\frac{(9 + 4\sqrt{2})}{12}$
	_____	+	irrational	=	_____
c.	$\frac{\sqrt{3}}{4}$	·	$\frac{2}{3}$	=	$\frac{\sqrt{3}}{6}$
	_____	·	_____	=	_____
d.	$\frac{3}{4}$	·	3.6	=	2.7
	_____	·	_____	=	_____

3. Describe the error each student makes.

a. Carmen says that the sum of 11.2 and 19 will be irrational because 11.2 is not a rational number.

b. Ella says that the product of 5 and $(\sqrt{9})$ is an irrational number.