

P3 63: Exp. 11-15, 16, 17,  
19, 21, 22, 24

11  
 12  
 13  
 14  
 15  
 16

9  
 -  
 2  
 34  
 10  
 8  
 12

Comm. Prop. Add

17 Assoc. Prop. Add  
 19 Comm. Prop. Mult.  
 21 Comm Prop. Add  
 22 Assoc. Prop. Add  
 24 Comm. Prop. Mult.

2.9 cont.

Dec. 01, 2006

Zero vs. One

For any  $\mathbb{Q}$  a

Name

Property

Additive Identity  
Prop.

$$\underline{\underline{a + 0 = a}}$$

Mult. Prop. of zero

$$\underline{\underline{a \cdot 0 = 0}}$$

Mult. Ide. Prop.

$$\underline{\underline{a \cdot 1 = a}}$$

ex 5)

$6 + 0 = 6 \rightarrow$  Add Id. Prop  
AIP

$7 \cdot 0 = 0 \rightarrow$  Mult. Prop. of Zero  
MPZ

$14 \cdot \underline{1} = 14 \rightarrow$  Mult. Id. Prop.  
MIP



additive inverse:

$$4 + (-4) = 0$$

Def  $\triangleq$  : The number  
opposite of the original #.

The #s Add to equal zero

---

what is the Add. Inv.?

$$-7 \rightarrow +7 : \text{Yes}$$

$$8 \rightarrow -8$$

$$-1.5 \rightarrow 1.5$$

# Multiplicative Inverse:

$$7 \cdot \frac{1}{7} = 1$$

Def<sup>n</sup>: The **Reciprocal** of the original #.

$$\frac{3}{4} \rightarrow \frac{4}{3}$$

$$\cancel{\frac{3}{4}} \cdot \cancel{\frac{4}{3}} = \frac{1}{1} = \underline{\underline{1}}$$

ex1  $\frac{3}{4} \div \frac{9}{2}$  Not M.I

$$\frac{\cancel{3}}{\cancel{4}_2} \cdot \frac{\cancel{2}_1}{\cancel{9}_3} = \frac{1}{6}$$

ex2  $\frac{4}{5} \div \frac{3}{40}$  Not M.I

$$\frac{\cancel{4}}{\cancel{5}_5} \cdot \frac{\cancel{40}^8}{\cancel{3}} = \frac{32}{3}$$

O.T.L.

Pg. 63: Exp. 1-15 all

Due Monday