Worksheet Chapter 1 Name _____

Direction: Write neatly; show your work in an organized fashion.

1. Assign variable, & Translate, **DON'T SOLVE:** In 1999, $4.6 billion worth of tea was sold in the U.S. This was $2.8 billion more than the amount sold in 1990. How much tea was sold in 1990?	2. Use the Commutative law to rewrite: 4(xy) = _____ Use the Associative law to rewrite: 4(xy) = _____
3. $\frac{5}{12}+\frac{4}{9}$	4. $\frac{9}{16}\div 3$
5. Write and inequality with the same meaning as –3 < x.	6. True or False: $9 \geq 9$
7. Rewrite the subtraction as addition and simplify the answer (show both). -2 – (-7)	8. $\frac{2}{3}\cdot\left(-\frac{3}{7}\right)$
9. Simplify, show steps: $120-6^2\div\left\|-4\right\|\cdot 8$	10. Simplify, show steps: $\frac{4(18-8)+7\cdot 9}{9^2-8^2}$

Worksheet Chapter 1 **SOLUTIONS**

1. Assign variable, & Translate, **DON'T SOLVE:**

In 1999, $4.6 billion worth of tea was sold in the U.S. This was $2.8 billion more than the amount sold in 1990. How much tea was sold in 1990?

Set x = to amount of tea sold in 1990 in $billion

x = 4.6 – 2.8

2. Use the Commutative law to rewrite:

4(xy) = 4(yx) or (xy)4, many answers

Use the Associative law to rewrite:

4(xy) = (4x)y only one answer

3. $\frac{5}{12}+\frac{4}{9}$ =

$=\left(\frac{3}{3}\right)\left(\frac{5}{12}\right)+\left(\frac{4}{4}\right)\left(\frac{4}{9}\right)$

$=\frac{15}{36}+\frac{16}{36}$

$=\frac{31}{36}$

4. $\frac{9}{16}\div 3$

$=\left(\frac{9}{16}\right)\div\left(\frac{3}{1}\right)$

$=\left(\frac{9}{16}\right)\cdot\left(\frac{1}{3}\right)$, divde by 3

$=\frac{3}{16}$

5. Write and inequality with the same meaning as –3 < x.

x > -3

6. True or False: $9 \geq 9$

True

7. Rewrite the subtraction as addition and simplify the answer (show both).

-2 – (-7) = -2 + 7 = 5

8. $\frac{2}{3}\cdot\left(-\frac{3}{7}\right)$

$=\left(\frac{2}{3}\right)\cdot\left(-\frac{3}{7}\right)$, divde by 3

$=-\frac{2}{7}$

9. Simplify, show steps:

$120 - 6^2 \div |-4| * 8$

$= 120 - 6^2 \div 4 * 8$

$= 120 - 36 \div 4 * 8$

$= 120 - 9 * 8$

$= 120 - 72$

$= 48$

10. Simplify, show steps:

$\frac{4(18-8)+7\cdot 9}{9^2-8^2}$

$=\frac{4(18-8)+7\cdot 9}{9^2-8^2}$

$=\frac{4(10)+7\cdot 9}{9^2-8^2}$

$=\frac{4(10)+7\cdot 9}{81-64}$

$=\frac{40+63}{81-64}=\frac{103}{17}$