

38. Plan A

0.10 per

$$\begin{array}{r} 750 \\ \times 0.10 \\ \hline 75.00 \end{array}$$

Plan CPlan B

\$29.99 for 500

$$\begin{array}{r} 750 \\ - 500 \quad 29.99 \\ \hline 250 \\ \times 0.08 \\ \hline 20.00 \\ 29.99 \\ + 20.00 \\ \hline 49.99 \end{array}$$

Plan C\$39.99 for 1000

$$\begin{array}{r} 1000 \\ - 750 \\ \hline 250 \end{array}$$

Plan D

\$49.99 for 1500

cups	4	8	12	16
quarts	1	2	3	4

a.) There are four cups in one quart.

b.)  $c = \# \text{ of cups}$   
 $\frac{c}{4}$

c.)  $\frac{100}{4} = 25 \text{ quarts}$

A.)

Days	Cost	
2	10.00	DVD 4.00 for 2 days
4	20.00	Game 3.00 for 1 day
6	30.00	1 DVD + 1 game
8	40.00	
10	50.00	

B. 4 DVD's 3 game for 10 days

$$1 \frac{4.00}{2 \text{ days}}$$

$$4 \frac{16.00}{2 \text{ days}} \times 5$$

DVD's  
80.00

$$\frac{3.00}{1 \text{ day}} \times 3 = \frac{9.00}{1 \text{ day}} \times 10 = 90.00$$

\$ 80.00

90.00

\$ 170.00

B.)

56.)

$$\frac{\begin{array}{c} \diagup \quad + 11 \\ 8 \div 8 + 11 \end{array}}{15 - 4(3)} = \frac{12}{3} = \textcircled{4}$$

$\downarrow$   
 $15 - 12$   
 $3$

60.)

Knights

$$\begin{array}{r} 14 \\ \times 3 \\ \hline 42 \\ + 7 \\ \hline 49 \text{ points} \end{array}$$

Panthers

$$\begin{array}{r} 10 \\ \times 3 \\ \hline 30 \\ + 6 \\ \hline 36 \text{ pts} \end{array}$$

$$\begin{array}{r} 49 \\ - 36 \\ \hline 13 \text{ more points} \end{array}$$

1-3 PropertiesCommutative Property

Addition  $6+9=9+6$   
 $15=15$

Multiplication

$$4 \cdot 7 = 7 \cdot 4$$
$$28 = 28$$

## Commute

- getting from one place to another.
- changing positions

## Associative Property

Addition

$$16 + (14 + 58)$$

$$16 + 72$$

$$88$$

$$(16 + 14) + 58$$

$$30 + 58$$

$$88$$

Associate  
• change who the #s  
associate with

## multiplication

$$(5 \cdot 9) \cdot 2 = 5 \cdot 2 = 10 \cdot 9 = 90$$

$$45 \cdot 2$$

$$= 90$$

$$(5 \times 9) \times 2 = 5 \times (9 \times 2) \quad \text{or} \quad (5 \times 2) \times 9$$

$$45 \times 2$$

$$5 \times 18$$

$$\text{or} \quad 10 \times 9$$

$$90$$

$$90$$

or

$$90$$

### Additive Identity

add zero = same answer

$$5 + 0 = 5$$

### Multiplicative Identity

multiply 1 = same answer.

$$7 \times 1 = 7$$

Identity = same answer as the #  
you start with



Multiplicative property of zero  
by 0

$$6 \times 0 = 0$$

$$\text{multiply by } 0 = 0$$

1-3  
Vocabulary

counter example — shows the statement  
is NOT true!

example:

$$5 \cdot 9 \cdot 2 = 90$$

$$(5 \cdot 9) 2 =$$

$$45(2) = 90$$

$$12 \div 4 = 3 \quad \text{NOT} \quad 4 \div 12 = \frac{1}{3}$$

simplify = solve or make simpler  
 $(3+c)+7$

$$\begin{array}{rcl} 1.) & 1.2 - 2.3 & = 2.3 - 1.2 \\ & -1.1 & \neq 1.1 \end{array}$$

NOT the same

$$2a.) \quad d + 0 = d$$

Identity (+)

$$2b.) \quad 8 \cdot 1 = 8$$

Identity (x)

$$2c.) \quad 14 + (9 + 10) = (14 + 9) + 10$$

Associative (+)

$$2d.) \quad 5 \times 7 \times 2 = 7 \times 2 \times 5$$

Commutative (x)