$$\frac{3}{4} \times -2 + \frac{1}{2} \times + \frac{1}{2} \times -\frac{1}{2} \times -\frac{1$$

Jan 6-12:13 PM

Variables on Both Sides Word Problems

* The Same means Equal *

Set-up 2 expressions & Set equal

to each other.

* Don't forget to Label *

Oct 25-1:10 PM

1. PLUMBING A1 Plumbing Service charges \$35 per hour plus a \$25 travel charge for a service call.

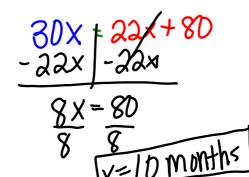
Good Guys Plumbing Repair charges \$40 per hour for a service call with no travel charge. How long must a service call be for the two companies to charge the same amount?

A1=66

$$\frac{35x+25}{-35x} + \frac{40x}{-35x}$$

 $\frac{25}{5} = \frac{5x}{5}$
 $\frac{25}{5} + \frac{5}{5}$

2. EXERCISE Mike's Fitness Center charges \$30 per month for a membership. All-Day Fitness Club charges \$22 per month plus an \$80 initiation fee for a membership. After how many months will the total amount paid to the two fitness clubs be the same?



3. SHIPPING The Lone Star Shipping Company charges \$14 plus \$2 a pound to ship an overnight package. Discount Shipping Company charges \$20 plus \$1.50 a pound to ship an overnight package. For what weight is the charge the same for the two companies?

 $LS=DS \quad 14+2x=20+1.5x \\ -1.50x \quad -1.5x \\ \hline 14+0.5x=20 \\ -14 \\ \hline 0.5x=6 \\ \hline 0.5 \\ \hline 0$

4. MONEY Deanna and Lisa are playing games at the arcade. Deanna started with \$15, and the machine she is playing costs \$0.75 per game. Lisa started with \$13, and her machine costs \$0.50 per game. After how many games will the two girls have the same amount of money remaining?

$$D=L 15-0.75x=13-0.5x +0.75 +0.75x
15=13+0.25x -13-13
2=0.25x 025 0.25
X: 8 games$$

Oct 25-1:09 PM

Bell Work

5. MONEY The Wayside Hotel charges its guests \$1
plus \$0.80 per minute for long distance calls. Across
the street, the Blue Sky Hotel charges its guests \$2
plus \$0.75 per minute for long distance calls. Find
the length of a call for which the two hotels charge
the same amount.

$$1+0.8x = 2+0.75x$$
 $-0.75x = 0.75x$
 $1+0.05x = 2$
 -1
 $0.05x = 1$
 0.05
 0.05
 0.05

6. COLLEGE Duke is a part-time student at Horizon Community College. He currently has 22 credits, and he plans to take 6 credits per semester until he is finished. Duke's friend Kelly is also a student at the college. She has 4 credits and plans to take 12 credits per semester. After how many semesters will Duke and Kelly have the same number of credits?

$$30+6x = 4+13x$$

 $-6x = -6x$
 $30=4+6x$
 $-4=4$
 $18=6x$
 $6=6$
 $X=3$ Semesters