
$-6 + 5x = -36$

$4x + 48 = 27$

$5x + 4 = 29$

$\frac{2x}{3} + 8 = \frac{9}{2}$


-6 + 5x = -36

$-6+6+5x=-36+6$

$\frac{5x}{5}=\frac{-30}{5}$

$x=-6$

| LS | RS |
|---|---|
| $-6+5x$ | $-36$ |
| $-6+5(-6)$ | |
| $-6-30$ | |
| $-36$ | |

LS = RS ∴ x = -6

4x +48 =27

$4x+48-48=27-48$

$\frac{4x}{4}=\frac{-21}{4}$

$x=-\frac{21}{4}$

| LS | RS |
|---|---|
| $4x+48$ | 27 |
| $4\left(-\frac{21}{4}\right)+48$ | |
| $-21+48$ | |
| 27 | |

LS = RS ∴ $x=-\frac{21}{4}$

$5x + 4 = 29$

$5x + 4 - 4 = 29 - 4$

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

$x = 5$

| LS | RS |
|---|---|
| $5x+4$ | $29$ |
| $5(5)+4$ | |
| $25+4$ | |
| $29$ | |

$LS = RS \therefore x = 5$

$\frac{2x}{3} + 8 = \frac{9}{2}$

$6\left(\frac{2x}{3}\right) + 6(8) = 6\left(\frac{9}{2}\right)$

$4x + 48 = 27$ already solved


$-6 \overset{+6}{} + 5x = -36 \overset{+6}{}$

$\frac{5x}{5} = \frac{-30}{5}$

$x = -6$

$\frac{2x}{3} \overset{\cdot 6}{} + 8 \overset{\cdot 6}{} = \frac{9}{2} \overset{\cdot 6}{}$

$\frac{12x}{3} + 48 = \frac{54}{2}$

$4x + 48 \overset{-48}{} = 27 \overset{-48}{}$

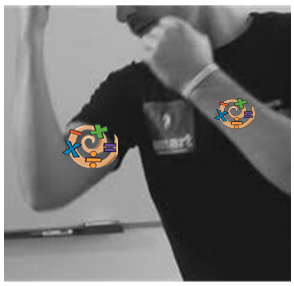
$\frac{4x}{4} = \frac{-21}{4}$

$x = -5.25$

$5x + 4 \overset{-4}{} = 29 \overset{-4}{}$

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

$x = 5$



Problems with the homework...

Page 273-274 18 - 24

24. c) $\frac{3}{4} - 5p = \frac{67}{6}$

$12\left(\frac{3}{4}\right) - 12(5p) = 12\left(\frac{67}{6}\right)$

$3(3) - 60p = 2(67)$

$9 - 60p = 134$

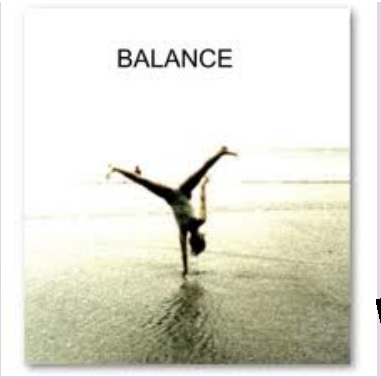
$9 - 9 - 60p = 134 - 9$

$\frac{-60p}{-60} = \frac{125}{-60}$

$p = -\frac{25}{12}$

| LS | RS |
|---|---|
| $\frac{3}{4} - 5p$ | $\frac{67}{6}$ |
| $\frac{3}{4} - 5\left(-\frac{25}{12}\right)$ | |
| $\frac{3}{4} + \frac{125}{12}$ | |
| $\frac{9}{12} + \frac{125}{12}$ | |
| $\frac{134}{12}$ | |
| $\frac{67}{6}$ | |

$LS = RS \therefore p = -\frac{25}{12}$

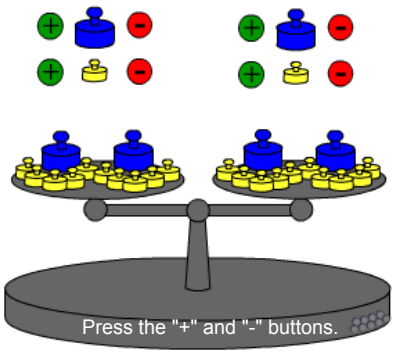

BALANCE


CIRQUE DU SOLEIL


BALANCE

# Solving Equations...

Your mission is to keep everything in balance!!




What ever you do to one side...
you must do to the other!!

Solve for x...

$6x + 2 = 10 + 4x$

$6x + 2 - 4x = 10 + 4x - 4x$

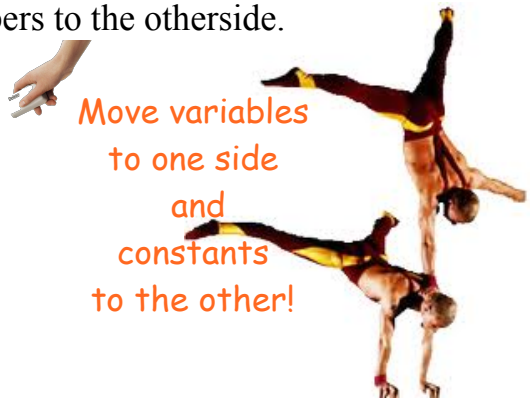
$2x + 2 = 10$

$2x + 2 - 2 = 10 - 2$

$\frac{2x}{2} = \frac{8}{2}$

$x = 4$

The only difference from last section is that numbers and letters appear on both sides and you have to bring all letters to one side and all numbers to the otherside.



Move variables to one side and constants to the other!

$-3c + 7 = 2c - 8$

$-3c + 7 - 2c = 2c - 2c - 8$

$-5c + 7 = -8$

$-5c + 7 - 7 = -8 - 7$

$\frac{-5c}{-5} = \frac{-15}{-5}$

$c = 3$


$\frac{122}{r} = 3 \quad , \quad r \neq 0$ Public service announcement.

$r\left(\frac{122}{r}\right) = r(3)$

$\frac{122}{3} = \frac{3r}{3}$

$\frac{122}{3} = r$


$$\frac{2a}{3} = \frac{4a}{5} + 7$$

multiply by the lowest common multiple

$$15\left(\frac{2a}{3}\right) = 15\left(\frac{4a}{5}\right) + 15(7)$$

$$10a = 12a + 105$$

$$10a - 12a = 12a - 12a + 105$$

$$\frac{-2a}{-2} = \frac{105}{-2}$$

$$a = -\frac{105}{2}$$

| L.S. | R.S. |
|---|---|
| $\frac{2a}{3}$ | $\frac{4a}{5} + 7$ |
| $\frac{2}{3}\left(-\frac{105}{2}\right)$ | $\frac{4}{5}\left(-\frac{105}{2}\right) + 7$ |
| $-35$ | $-42 + 7$ |
| | $-35$ |

$LS = RS \therefore a = -105/2$

"x" equals the number of minutes you use.

A cell phone company offers two plans.

Plan A : 120 free minutes, $0.75 per additional minute

Plan B : 30 free minutes, $0.25 per additional minute

Plan A

Plan B

Which time for calls will result in the same cost for both plans?

a) Model the problem with an equation

b) Solve the problem.

c) Verify the problem

b)

# Class/Homework


Page 281 6,7 (Do not use algebra tiles)