(20)   (40z) | 4 in   (40z)   (20)
            4 in

                    2 + 1 + 1 = 4   2 in   2 in

                    1 in   1 in

        16 oz   6 oz

                2 oz   2 oz

                    (8)   (8)

You bought a mobile kit. You read on the package that the weight
of the entire mobile is 40 oz. Each inch of the crossbar weighs 1
oz. What is the weight of each shape?

Solve each equation

1) $5x + 4 = 2x + 10$

  $\underline{-5x} \qquad -5x$

  $\quad 4 = {}^-3x + 10$

  $\underline{-10} \qquad\qquad -10$

  $\dfrac{-6}{-3} = \dfrac{{}^-3x}{-3}$

  $\quad 2 = x$

  $\quad x = 2$

2) $4(d - 3) = 2d$

  $4d - 12 = 2d$

  $\underline{-4d} \qquad\quad -4d$

  $\dfrac{-12}{-2} = \dfrac{-2d}{-2}$

  $\boxed{6 = d}$

3) $(x-3)-2 = 6-2(x+1)$

$x-3-2 = 6-2x-2$

$x-5 = 4-2x$

$-x \qquad -x$

$-5 = 4-3x$

$-4 \quad -4$

$\dfrac{-9}{-3} = \dfrac{-3x}{-3}$ $\quad$ $\boxed{x=3}$

4) $3(2c+1)-c = 13$

$6c+3-c = 13$

$\quad -3 \qquad -3$

$6c-c = 10$

$\dfrac{5c}{5} = \dfrac{10}{5}$

$\boxed{c=2}$

5. Lisa and Beth have babysitting jobs. Lisa earns \$30 per week and Beth earns \$25 per week. How many weeks will it take them to earn a total of \$275. Write and solve.

$$30w + 25w = 275$$

$$\frac{55w}{55} = \frac{275}{55}$$

$$w = 5$$

It will take 5 weeks to earn \$275.

6. What two consectutive numbers have a sum of 53?

$$1st \; \# = x = \boxed{26}$$

$$2nd \; \# = x + 1 \; \boxed{27}$$

$$x + x + 1 = 53$$

$$2x + 1 = 53$$

$$-1 -1$$

$$\frac{2x}{2} = \frac{52}{2}$$

$$\boxed{x = 26}$$

7) Solve. $A = \frac{1}{2} h (b_1 + b_2)$ for h

$$2(A) = \left[\frac{1}{2} h (b_1 + b_2) \right] 2$$

$$\frac{2A}{(b_1 + b_2)} = \frac{h (b_1 + b_2)}{(b_1 + b_2)}$$

$$\boxed{\frac{2A}{b_1 + b_2} = h}$$

Literal Equation

- rewrite the equation

- dont touch variable being solved for

Solve for y.

8) $\left(\frac{3}{7}(y+2)=g\right)7$

$3(y+2)=7g$

$3y+6=7g$

$-6 -6$

$\frac{3y}{3}=\frac{7g}{3}-\frac{6}{3}$ $y=\frac{7g}{3}-2$

9) $\left(\frac{3y-1}{2}=m\right)2$

$3y-1=2m$

$+1 +1$

$\frac{3y}{3}=\frac{2m}{3}+\frac{1}{3}$

$y=\frac{2}{3}m+\frac{1}{3}$