

## 3.5. Solving Problems

Dec. 18, 2006

\*Goal! To Solve Problems  
Using Equations.

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ex 1) David bought a radio on Sale + Saved \$8.00.

The radio's regular Price is \$35.00.  
What was the Sale Price?

\$27.00 is the Ans!  
( $35 - 8 = 27$ )

Now with equations.

Saved + Paid = Total (original)

\*  $8 + P = 35$

Let  $P$  represent "Paid"

$$\begin{array}{r} 8 + P = 35 \\ \underline{-8} \quad \underline{-8} \\ P = 27 \end{array}$$

ex2) Lisa weighs 128 pounds.  
This is 8 times the weight  
of her saddle.

What does her saddle weigh?

Let:  $n$  = saddle weight  
\* (let the variable = the question)

$$\frac{128}{8} = \frac{8 \cdot n}{8}$$

$$\begin{array}{r} 16 \\ 8 \overline{)128} \\ \underline{8} \phantom{0} \\ 40 \\ \underline{48} \\ 0 \end{array}$$

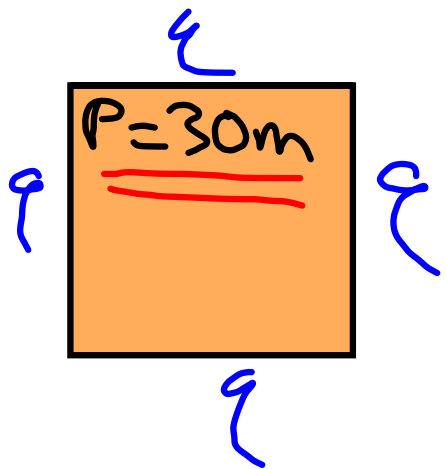
$$\underline{\underline{16 = n}}$$

lbs

ex 3) The perimeter of a square is 30m.

Find the length of each side.

Let  $a$  = length of a side



$$P = a + a + a + a$$
$$30 = \cancel{4a}$$
$$\frac{30}{4} = \cancel{a}$$
$$\frac{15}{2} = a$$

7.5m

O.T.L. (b) Notebooks Due Today!

(1) Pg 88: Exp. 1-12 (all)

~~Due Today~~

• define the Variable

ie: Let: \_\_\_\_\_ = \_\_\_\_\_

Variable of your choice

• State the equation  
and

• Solve for the Variable