

If you scored over 21 on the quiz, please speak to me after class.

Read it. *My stupid way*

The last sentence (the one with the question mark) usually tells you what you're looking for (The variable x comes from this). *x in words and units.*

Translate the sentences into equations.

Solve the equation(s)

Check and interpret.

*stuff = stuff
same units*

Polya method:

<http://www.math.utah.edu/~pa/math/polya.html>

- ① Understand
- ② Translate
- ③ Solve
- ④ Interpret.

Understand - Read it
 Re-write it in easier way to understand.
 Propose a solution.
check the solution

↳ The way you check just MIGHT be the key to writing the equations.

☒ Tax is 8%. What's the price with tax, of an \$8 book?

\$8.80 is proposed.

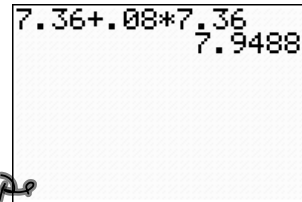
$$\begin{aligned} \text{Price with tax} &= \text{Price} + \text{tax} \\ x &= \$8 + 8\% \text{ of } \$8 \\ &= 8 + (.08)(8) = \$8.64 \\ \text{Price w/ tax} &= \text{Price} + \text{rate times price.} \end{aligned}$$

☒ Book with tax costs \$8. What's the price before 8% sales tax?

\$7.36

check:

$$7.36 + (7.36)(.08) \approx 7.95 \text{ Nope}$$



Price w/ tax = Price + rate times price.

$$8 = x + .08x \quad \text{Non-intuitive}$$

Let $x = \text{price before tax (in \$)}$
 3pts on 10-pointers.

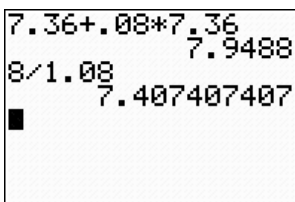
$$8 = 1x + .08x = (1 + .08)x = 1.08x$$

$$8 = 1.08x$$

$$\frac{8}{1.08} = x \approx \$7.41$$

check:

$$7.41 + (.08)(7.41) \approx 8.00$$



Book after and 8% discount is \$8.
 what's the original price?

8% of x is 8? Nah.

Price **AFTER** discount is original price minus Amount discounted

Non-intuitive. $8 = 1x - .08x$

$$8 = .92x$$

$$\frac{8}{.92} = x \approx 8.70$$

Let x = price, after the 8% discount. (in \$)

What's the price after an 8% discount is applied to an \$8 book?

Price after discount is original price minus Amount discounted.

$$x = 8 - .08(8)$$

$$\boxed{7.36 = x}$$

Write the following as an algebraic expression. Then simplify.

The total amount of money (in cents) of x nickels and $(x + 3)$ quarters.
(The value of a nickel is 5 cents and the value of a quarter is 25 cents.)

The answer is cents.
(Type a simplified expression.)

$$\begin{aligned}
 & \underbrace{\left(x \text{ nickels} \right)}_{\text{\$}} \left(\frac{5 \text{¢}}{1 \text{ nickel}} \right) + \underbrace{\left((x+3) \text{ quarters} \right)}_{\text{\$}} \left(\frac{25 \text{¢}}{1 \text{ quarter}} \right) \\
 & = 5x + 25(x+3) = 5x + 25x + 75 \\
 & = 30x + 75
 \end{aligned}$$

<http://interactmath.com/ChapterContents.aspx>

Lots of good homework help!!!
Use it!

§ 2-2 : #s 1-10 Vocab & Readiness
Exercises #s 1, 4, 7, ..., 55, 62, 65
Every 3rd one.