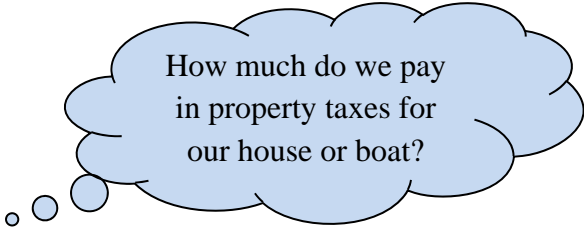


Business Mathematics
Class notes
Property Tax (section 13.1)



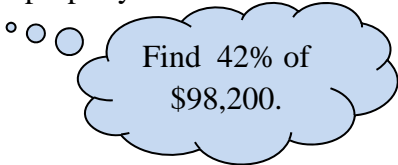
How much do we pay
in property taxes for
our house or boat?

Property tax is figured as a percentage of the assessed value of the object. The **assessed value** of a house, boat, or other taxable object is found by multiplying the fair market value by some percentage. The **fair market value** is the price a property would sell for.

expl 1: Find the assessed value of the property.

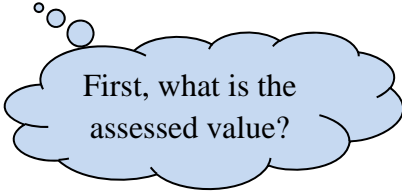
Fair market value: \$98,200

Rate of assessment: 42%

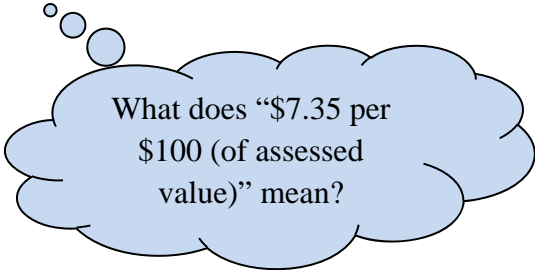


Find 42% of
\$98,200.

expl 2: One Harley Davidson store has property with a fair market value of \$518,600. The property is located in an area that is assessed at 35% of market value. The tax rate is \$7.35 per \$100 (of assessed value). Find the property tax.



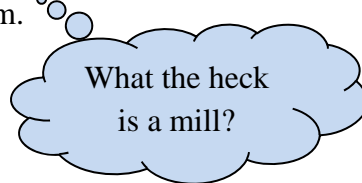
First, what is the
assessed value?



What does “\$7.35 per
\$100 (of assessed
value)” mean?

Converting among Tax Formats:

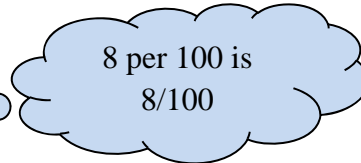
As we will see, property tax is often given in different formats. We might be given a percentage, an amount of dollars per \$100 of assessed value, an amount of dollars per \$1,000 of assessed value, or even mills (per \$1 of assessed value). We will need to convert among forms and figure property taxes with them.



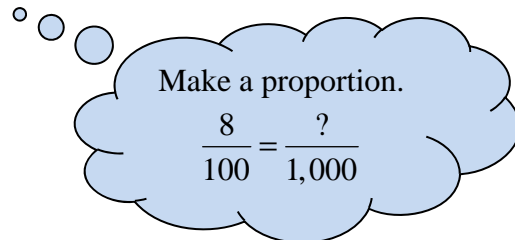
First, a **mill** is one-thousandth of a dollar. So 8 mills would be 8 of these \$0.001 – or rather \$0.008. That is 8 tenths of a cent! Let's play around with converting among the different formats you might see.

expl 3: Consider a tax of \$8 per \$100 of assessed value. Use percents and ratios to write their equivalent forms below.

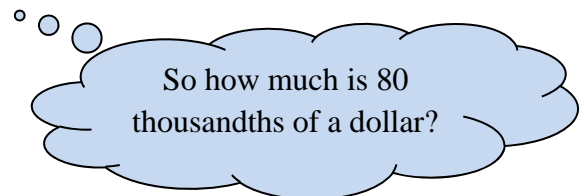
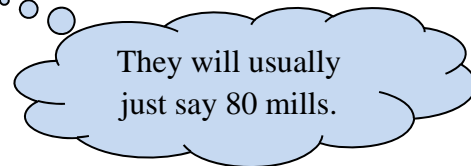
\$8 per \$100 of assessed value = _____ %



\$8 per \$100 of assessed value = \$_____ per \$1,000 of assessed value



expl 4a: Consider a tax of 80 mills (per \$1 of assessed value). So for every dollar of assessed value, how much tax is charged?



expl 4b: So for every \$1,000 of assessed value, how much tax is charged?

expl 5: Write the given tax rate using the other three methods.

Tax rate: \$6.75 per \$100 ° ○ ○

They leave off “of
assessed value” often.

a.) Write it as a percent.

Do we use the
percent sign, dollar
sign, or no sign
(for mills)?

b.) Write the equivalent tax rate “_____ per \$1,000”.

c.) Write the equivalent tax rate “_____ mills”.

Recall, \$80 per
\$1,000 was the
same as 80 mills.

Worksheet: Finding property tax amounts with various rates:

This worksheet will help you practice finding the property tax for a house with an assessed value of \$100,000. You will use various formats.

Determining the Property Tax Rate:

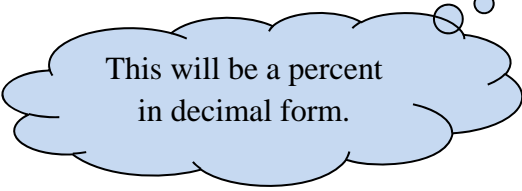
How does a city (or taxing authority) figure how much to charge their citizens for property tax?
Here is a simple process they might go through.

Step 1: Estimate the amount of money needed by the city or taxing authority.

Step 2: Find the *total* fair market value of *all* properties in the area.

Step 3: Find the *total* assessed value of *all* the properties.

Step 4: Calculate Property tax rate = $\frac{\text{Total tax amount needed}}{\text{Total assessed value of properties}}$

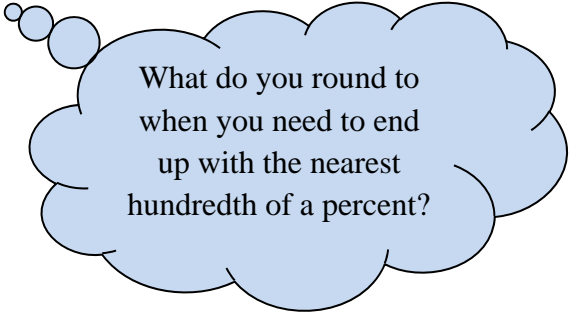


This will be a percent
in decimal form.

expl 6: Find the tax rate. Write it as a percent, rounded to the nearest hundredth of a percent.

Total tax amount needed: \$28,630,000

Total assessed value: \$12,350,000,000




What do you round to
when you need to end
up with the nearest
hundredth of a percent?

To summarize, complete the sentences.

So, in order for the municipality to make the required _____, they should

charge a property tax rate of _____. At this rate, the total assessed value of

_____ will generate _____ in taxes.



Why are
we short?