Lesson | Understanding and Calculating Sales Tax

Explore the concept of sales tax—and why where you live affects the cost of things you buy.

Objective
Students will calculate percentages to figure out sales tax, and compare shopping costs based on different tax rates.

Standards
Common Core Math
6.RP.A.3C Find a percent of a quantity; solve problems involving finding the whole, given a part and the percent.

Time
40 minutes

Materials
- Figure Out the Sales Tax! activity sheet
- Scholastic Study Jams video about percents and sales tax: bit.ly/20PRjIN
- Number cubes
- Sample receipt image, such as at bit.ly/37nop9x
- Calculators (optional)

1 **Tell** the story of three cousins, Pam, Cam, and Sam, who all bought the same video game for the same price: $25. But they paid three different total amounts because of where they live. Ask: *How could this be?* Activate prior knowledge by having students recall sales receipts they've seen. Have they ever bought an item and found there was an extra cost?

2 **Introduce** the concept of sales tax by showing a sample receipt. Point out the subtotal and tax lines, and explain that sales tax is a percentage of the price that is added to the original cost. Each state decides how much sales tax to charge on certain items; states use the money to pay for public services like roads and schools. Some states also have city or other local sales taxes added to the state sales tax.

3 **Demonstrate** how to calculate sales tax from different states on the game:

- Pam: Maine sales tax is 5.5%, which adds $1.38 for a total price of $26.38.
  Step 1: $25 × 0.055 = $1.375.
  Step 2: $25 + $1.375 = $26.38 rounded.
- Cam: Indiana sales tax is 7%, which adds $1.75 for a total price of $26.75.
- Sam: New Orleans, Louisiana, has state taxes and local taxes that add up to a sales tax percentage of 9.45%, which adds $2.36 for a total price of $27.36.

4 **Show** Scholastic Study Jams video on calculating percents and sales tax.

5 **Have** students complete the Figure Out the Sales Tax! activity sheet. Then discuss to reinforce concepts. Ask: *For every dollar, sales tax adds __ cents in our city, so what amount is added for every 10 dollars? (Remember, if sales tax is 5%, that means $0.05 for every dollar.) When we know the tax amount paid (say, $21), how can we use proportional reasoning to find the original cost?*

6 **Assess** with an exit slip. Tell students: *The clerk at a small store calculated my receipt by hand. I bought items for $1, $5, and $4. The sales tax is 5%. The clerk charged me $15.* Have students write a sentence on whether this "feels right" using mental math, and how the clerk should fix the error. (Answer: Sales tax on $10 is $0.50, but the clerk made a place-value error and added $5 to the subtotal. The correct total is $10.50.)

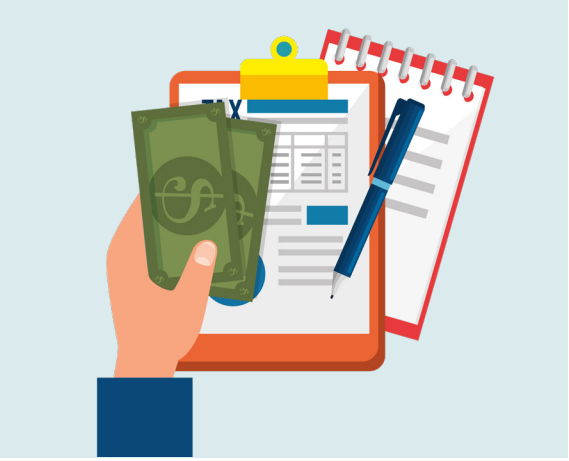
Extensions

Students can build their knowledge of common financial literacy terms with our digital flashcards, which include definitions and examples. Available in study mode and quiz mode at bit.ly/3tRUkKO.

Name _____

Figure Out the Sales Tax!

Find the sales tax on different items—then learn a quick mental math strategy for calculating percentages.



Roll a number cube and write the number in the sales tax percentage column. Roll the number cube again until you have filled the column. Use a calculator to find how much sales tax will be added, and the total cost.

Item	Item Cost	Sales Tax %	Sales Tax Amount	Total Cost
Video game	$39.00			
Set of markers	$11.00			
Skateboard	$55.00			
Set of books	$44.00			

Take it further. Write your answers on the lines below.

1. What is the amount of a 1% sales tax on the video game that costs $39.00? _____
2. What is 1% of the $11.00 markers? _____
3. What pattern do you observe? _____

TIPS

- **Use mental math** to quickly find 1% of a number: Move the decimal point two spaces to the left, which is equivalent to dividing the number by 100. Once you have 1%, you can double it to find 2%, etc.
- **To double-check** that you're moving the decimal in the correct direction, remember that you want to end up with a number that is smaller than the original number, since 1% is just a small amount of the whole.

4. **Final challenge:** Now that you can find a 1% and 2% sales tax, how can you use mental math to find 3%, 4%, 5%, and 6% tax?

_____

_____

Answer Key

Figure Out the Sales Tax!

Find the sales tax on different items—then learn a quick mental math strategy for calculating percentages.

Roll a number cube and write the number in the sales tax percentage column. Roll the number cube again until you have filled the column. Use a calculator to find how much sales tax will be added, and the total cost.

Item	Item Cost	Sales Tax %	Sales Tax Amount	Total Cost
Video game	$39.00	5%*	$1.95	$40.95
Set of markers	$11.00	5%	$0.55	$11.55
Skateboard	$55.00	5%	$2.75	$57.75
Set of books	$44.00	5%	$2.20	$46.20

*Sales tax varies by location, so answers will vary.

Take it further. Write your answers on the lines below.

1. What is the amount of a 1% sales tax on the video game that costs $39.00? $0.39

2. What is 1% of the $11.00 markers? $0.11

3. What pattern do you observe? Answers will vary. Example: You just move the decimal point to the left two places.

TIPS

- **Use mental math** to quickly find 1% of a number: Move the decimal point two spaces to the left, which is equivalent to dividing the number by 100. Once you have 1%, you can double it to find 2%, etc.
- **To double-check** that you're moving the decimal in the correct direction, remember that you want to end up with a number that is smaller than the original number, since 1% is just a small amount of the whole.

4. **Final challenge:** Now that you can find a 1% and 2% sales tax, how can you use mental math to find 3%, 4%, 5%, and 6% tax?

Answers will vary. Example: If you know 1% of something, you can multiply by 3 to get 3%. If you know 2% of something, you can double it to get 4%.