

What is a consumer?

A consumer is a person who purchases goods and services for personal use.



So what is consumer math?

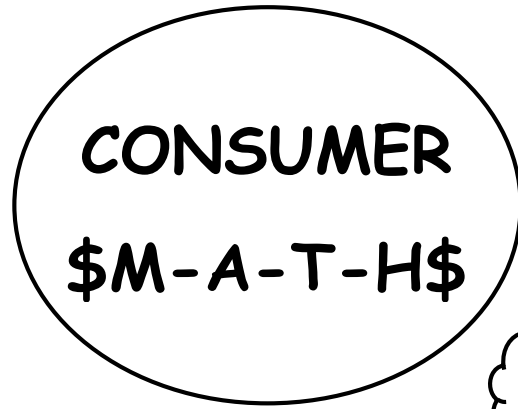
Using math is everyday life!

List 3 Examples

- 1-
- 2-
- 3-

Proportions in Consumer Math

- 1- Tax
- 2- Tip
- 3- Discount



1

Tax



Tax makes total cost increase

Formula

$$\frac{\text{tax} \rightarrow \text{part (is)}}{\text{original price} \rightarrow \text{whole (of)}} = \frac{\%}{100}$$

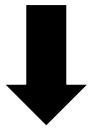
Ex. Todd purchased a \$50 skateboard with 5% sales tax. What is the amount of the tax?

$$\frac{x}{50} = \frac{5}{100}$$

****To find the total price, ADD the original price and the tax.**

3

Discount



Discount makes total cost decrease

Formula

$$\frac{\text{discount} \rightarrow \text{part (is)}}{\text{original price} \rightarrow \text{whole (of)}} = \frac{\%}{100}$$

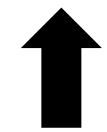
Ex. Ms. DiCesare bought \$70 snow pants for 15% off. How much was the discount?

$$\frac{x}{70} = \frac{15}{100}$$

****To find the total price, SUBTRACT the discount from the original price.**

2

Tip



Tip makes total cost increase

Formula

$$\frac{\text{tip} \rightarrow \text{part (is)}}{\text{original price} \rightarrow \text{whole (of)}} = \frac{\%}{100}$$

Ex. Rachel got her hair done at the salon for \$30 and wanted to tip 20%. How much is the tip?

$$\frac{x}{30} = \frac{20}{100}$$

****To find the total price, ADD the original price and the tip.**

Tax

<p>1. Tax means _____ \$75 pair of UGG boots with 5% sales tax. What is the amount of tax? What is the total price paid?</p> <p>Tax: _____ Total: _____</p>	<p>2. You went shopping at Best Buy and bought a new iPod. If the subtotal was \$249.99, how much would the tax be? (The tax rate in Virginia is 5%) How much would the iPod cost?</p> <p>Tax: _____ Total: _____</p>
<p>3. A family pays \$34.56 for souvenirs on vacation. If the sales tax is 7.5%, what is the amount of tax that the family paid? What is the total that the family spent on souvenirs?</p> <p>Tax: _____ Total: _____</p>	<p>4. You want to buy a CD priced at \$12.99. If the sales tax rate is 8.75%, how much will you pay in sales tax? How much will you spend on the CD total?</p> <p>Tax: _____ Total: _____</p>
<p>5. Beth buys a box of cereal for \$4.25, a loaf of bread for \$0.75, and 2 apples for \$3.12. The sales tax is 6%, what is the total cost including tax?</p> <p>Tax: _____ Total: _____</p>	<p>6. Challenge: Ryan needs to buy a new hoodie. The ticket price of the hoodie was \$65.00. After sales tax was added, the final cost was \$74.25. What percent sales tax did Ryan pay on his hoodie?</p> <p>Tax: _____ Percent: _____</p>

Tip

1. Tip means _____
Dinner at Red Lobster was \$65.13. If you leave a 22% tip, how much is the tip?
What is the total you paid with tip?

Tip: _____ Total: _____

2. You and a friend went to dinner at Ruth Chris's Steak House. The subtotal came to \$105.29. If you decide to tip 20%, how much did you have to pay as a tip?
What would your total bill be?

Tip: _____ Total: _____

3. The Kelly family had a celebration dinner at the Cheesecake Factory. They spent \$72.50 and planned to leave a 20% tip. How much was the total bill for the Kelly family?

Tip: _____ Total: _____

4. Mike's family went out for dinner. The meals including tax cost \$69.57. If they leave a 15% tip, how much money did they spend on dinner?

Tip: _____ Total: _____

5. You go to a stylist for a haircut. The cost of the haircut is \$12.50. Find the amount of a 15% tip for the stylist.

Tip: _____ Total: _____

6. Challenge: Kim and Sam went to Mexico Restaurant for lunch. The total bill including tip was \$25.46. They left \$3.82 for a tip. What percent tip did Kim and Sam leave?

Percent: _____

Discount

<p>1. Tip means _____ \$55 set of headphones for 15% off. What is amount of discount? What is the total amount you pay?</p> <p>Discount: _____ Total: _____</p>	<p>2. You and your family went to Riverside Café for dinner and the total bill was \$54.95. Since you have a Hawk Card, you can get a 20% discount. How much would you save using your Hawk Card? What would be the final amount you pay?</p> <p>Discount: _____ Total: _____</p>
<p>3. The earrings that Mrs. Moore wants to buy are \$55.00. She won't buy them until they are at least 45% off. What is the most that Mrs. Moore is willing to spend?</p> <p>Discount: _____ Total: _____</p>	<p>4. A sweater is on sale at a 20% discount. If it normally sells for \$85, determine the sale price.</p> <p>Discount: _____ Total: _____</p>
<p>5. Andrew is buying a cell phone that has a regular price of \$185. The cell phone is on sale for 35% off the regular price. What will be the sale price?</p> <p>Discount: _____ Total: _____</p>	<p>6. Challenge: Shannon bought a new shirt for \$8.50 at Target. If the original price was \$13.50, what % discount did she receive?</p> <p>Discount: _____ Percent: _____</p>

Homework

Tax

<p>1. Micaela must pay a 10% tax on her new car. If her car is \$19,000, what is the total price of her purchase?</p>	<p>2. Pablo is purchasing a sweatshirt for \$32.00. What is the amount of tax on his purchase if he must pay a 6% sales tax?</p>
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Tip

<p>3. Ally got a haircut for \$45. She wants to leave a 20% tip. How much money should she give the hair dresser altogether?</p>	<p>4. The Johnsons' bill at a restaurant is \$124.00. How much money should the Johnsons leave if they plan to tip their waiter 15%?</p>
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Discount

<p>5. Sam bought a new bicycle on sale for \$160 that was 20% off. What was the original price of the bicycle?</p>	<p>6. Amanda is buying her best friend a CD for her upcoming birthday. The CD is originally priced at \$22.50, but has a sale sticker for 10% off. How much will Amanda save on her friend's gift?</p>
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