Get out your homework from yesterday and start checking your answers. After we check the homework we will take the Target Check

Classwork - Target Check and Sales Tax and Tips

1) A Girl Scout troop uses 14 flashlight batteries on a three-night camping trip. If they are planning to have another nine-night trip, how many batteries should they bring?

$$\frac{14 \text{ batteries}}{3 \text{ nights}} = \frac{x \text{ batteries}}{9 \text{ nights}} = \frac{3x = 126}{3}$$

$$x = 42 \text{ batteries}$$

2) Three pumps can remove a total of 1860 gallons of water per minute from a flooded mineshaft. How many gallons of water per minute can five pumps remove?

remove a total of 1860 gallons of water per minute from a flooded mineshall. If minute can five pumps remove?

$$\frac{1860 \text{ gal/min}}{3 \text{ Pumps}} = \frac{\text{X gal/min}}{5 \text{ Pumps}}$$
 $\frac{3 \times 3900}{3}$
 $\frac{3 \times 3900}{3}$

- 3) A cookie recipe calls for 3 eggs and makes 4 dozen cookies. Use this information to answer the following questions.
 - A) Using 12 eggs, how many dozen cookies can you make?

- A bag of 5 apples costs \$1.50 at Sam's Orchard.
 - a. At this same rate, how much would 19 apples cost?

oys to girls in a classroom is +... lass?

4 boys

5 girls

4 boys

7 to tal

7 to tal The ratio of boys to girls in a classroom is 4:5. If there are 27 total students in the classroom, how many yovs are in the class?

6) The movie theatre has 250 seats. On a Friday night, the sold tickets for 225 seats. What percent of the seats are full? What percent of the seats are empty?

$$\frac{225 \text{ sold}}{250 \text{ total}} = \frac{x}{100}$$

$$\frac{250 \text{ total}}{x = 90\%}$$

whole

100

 A 7th grade class of 245 voted for class president. 40% voted for Brad and 60% voted for Jane. How many people voted for the winner?

lass of 245 voted for class president. 40% voted for Brad and 60% voted for Jane. How is the winner?

$$\frac{100}{245 \text{ Hal}} = \frac{60}{100}$$

$$\frac{100}{245 \text{ Hal}} = \frac{60}{100}$$

$$\frac{100}{100}$$

$$\frac{10$$

8) In a survey, 400 people said they did not know the name of their representative in Congress. If 550 people were surveyed, what percent of people didn't know you their representative was? (round to the nearest tenth)

9) In a class of 25 people, 60% of them say they ride the bus to school. How many people in the class ride the bus to school?

25 people, 60% of them say they ride the bus to school. How many people in

$$\frac{x \text{ ride bus}}{25 \text{ Abal}} = \frac{60}{100}$$

$$\frac{x \text{ ride bus}}{x \text{ ride bus}} = \frac{60}{100}$$

$$\frac{x \text{ ride bus}}{x \text{ ride bus}} = \frac{60}{100}$$

$$\frac{x \text{ ride bus}}{x \text{ ride bus}} = \frac{60}{100}$$

10) Javier's teacher graded his 16-question quiz. Javier answered 14 of the questions correctly. What percent did Javier get on his quiz?

11) Rochelle buys a shirt on sale for 75% of the original cost. The original cost of the shirt is \$24.95. What was the sale price of the shirt? (round to the nearest cent)

$$\frac{\times}{$24.95} = \frac{75}{100}$$
 $\times = \frac{1871.25}{100}$
 $\times = 18.7125 - 5.818.71$



Kayaks Alonso plans to buy a new kayak that costs \$2,100. But when he buys the kayak, it actually costs more because he lives in a county where there is a 7% sales tax.

You can find the amount of tax on an item by multiplying the price by the tax percentage.

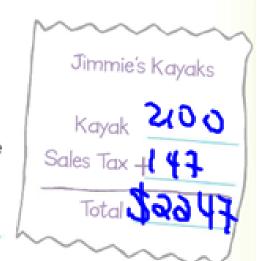
 Circle the amount below that shows the amount of tax Alonso will pay for the kayak.

\$350

\$235

\$147

- Use the amount of tax from Exercise 1 to fill in the receipt at the right. Then find the total cost Alonso will pay for the kayak.
- Multiply 1.07 and \$2,100. How does the result compare to your answer in Exercise 2?
- On Alonso's kayaking trip, hiring a guide costs \$50. Alonso wants to give the guide a 10% tip. Explain how to find the amount of the tip.



2100 = 7

x=\$14700 FH(B=x

Sales Tax and Total Cost

Sales tax is an additional amount of money charged on items that people buy. The total cost of an item is the regular price plus the sales tax.

Example



1. Drew wants to buy exercise equipment that costs \$140 and the sales tax is 5.75%. What is the total cost of the equipment?

Method 1

Add sales tax to the regular price.

First, find the sales tax.

Let t represent the sales tax.

$$part = percent \times whole$$

Write the percent equation.

$$t = 0.0575 \times 140$$

5.75% = 0.0575

$$t = 8.05$$

Multiply.

Next, add the sales tax to the regular price.

$$$8.05 + $140 = $148.05$$



Method 2

Add the percent of tax to 100%.

$$100\% + 5.75\% = 105.75\%$$

Add the percent of tax to 100%.

Let t represent the total.

$$part = percent \times whole$$

Write the percent equation. $= 1.0575 \times 140$

$$t = $148.05$$

Multiply.

105.75% = 1.0575

The total cost of the exercise equipment is \$148.05.

Method 3: Percent Proportion

Got it? Do this problem to find out.

a. What is the total cost of a sweatshirt if the regular price is \$42 and the sales tax is $5\frac{1}{2}$ %?

- x texas = 5½

X= \$3.31 in tokas

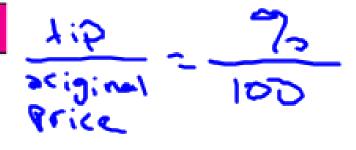
Total Cost

\$2.31+342 (\$44.31)

Tips and Markups

A tip or gratuity is a small amount of money in return for a service. The total price is the regular price of the service plus the tip.

A store sells items for more than it pays for those items. The amount of increase is called the markup. The selling price is the amount the customer pays for an item.

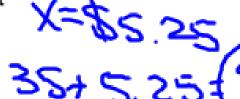


100



Examples

A customer wants to tip 15% on a restaurant bill that is \$35. What will be the total bill with tip?



324 2 52:

Method 1 Add the tip to the regular price.

First, find the tip. Let t represent the tip.

$$part = percent \times whole$$

$$t = 0.15 \times 35$$

$$15\% = 0.15$$

$$t = 5.25$$

Multiply.

Next, add the tip to the bill.

Method 2

Add the percent of tip to 100%

$$100\% + 15\% = 115\%$$

Add the percent of tip to 100%.

The total cost is 115% of the bill. Let t represent the total.

$$part = percent \times whole$$

$$t = 1.15 \times 35$$

$$115\% = 1.15$$

$$t = 40.25$$

Multiply.

Using either method, the total cost of the bill with tip is \$40.25.