

3-3-17

Aim: SWBAT apply knowledge of conversions to complete multi-step problems.

Do Now: Patel Problem

HW: Pg. 373 - 374 # 16, 27- 29, 32 - 34, 36, 37

Test Wednesday

03-12-13 Gratuity and Commission.notebook

March 10, 2014

Patel bought a model rocket kit from a catalog. The price of the kit was \$124.95. The state sales tax of 7% was added, and then a \$10 charge for shipping was added after the sales tax. What was the total amount Patel paid, including tax and shipping cost?

Show your work.

$$(0.07)(\$124.95) = \$8.7465 \text{ tax}$$

$$\$124.95 + \$8.7465 + \$10 = \$143.6965$$

$$\approx \$143.70$$

Answer \$143.70

Patel received an allowance of \$15 per week. How many weeks will it take him to purchase the kit?

Show your work.

$$\$143.70 \div 15 = 9.58$$

$$\approx 10$$

Answer 10 weeks

Multi-Step Word Problems.

The regular price of a computer desk is \$329.89. If there is a 15% discount and $8\frac{1}{4}\%$ sales tax, how much does the desk cost?

Part 1: Sale Price

$$\frac{x}{329.89} = \frac{15}{100}$$

$$\frac{100x}{100} = \frac{4948.35}{100}$$

$$x = 49.4835 \text{ savings}$$

$$\$329.89 - \$49.4835 = \$280.4065$$

Sale price

Part 2: Tax the Sale Price

$$\frac{x}{280.4065} = \frac{8\frac{1}{4}}{100}$$

$$\frac{100x}{100} = \frac{2313.353625}{100}$$

$$x = 23.13353625 \text{ tax}$$

$$\begin{array}{r} 280.4065 + \\ 23.13353625 \\ \hline \end{array}$$

303.5400 ...

\$303.54

Marie, Michelle, and Gayle went out to lunch together. The total bill for their meal was \$47.65. If they want to leave the waitress a 15% tip, what is the total cost of their lunch including tip?

$$(0.15)(47.65) = \$7.1475 \text{ tip}$$

$$\$47.65 + \$7.1475 = \$54.7975$$

$$\$54.80$$

Marie, Michelle, and Gayle went out to lunch together. The total bill for their meal was \$47.65. If they want to leave the waitress a 15% tip, what is the total cost of their lunch including tip?

$$\frac{x}{47.65} = \frac{15}{100}$$

$$\frac{100x}{100} = \frac{714.75}{100}$$
$$x = \$7.1475$$

tip

$$\$47.65 + \$7.1475$$

$$\$54.7975$$

$$\$54.80$$

Pg. 374 # 35

The DVD has a regular price of \$26 and is on sale for \$16.90. What is the percent discount? How much would a \$59 DVD box set cost if it has the same discount?

$$26 - 16.90 = \$9.10$$

amt. of
discount

$$\frac{9.10}{26} = \frac{x}{100}$$

$$\frac{26x}{26} = \frac{910}{26}$$

$$x = 35$$

35% off

$$(0.35)(59) = \$20.65$$

amt. of
discount

$$\$59 - 20.65 = \$38.35$$

Pg. 374 # 39

* A total bill, including sales tax and tip, is \$33. The tax is 4% and the tip is 16% of the bill before tax. Find the cost before tax and tip.

$$100\% + 4\% + 16\% = 120\%$$

$$\frac{33}{x} = \frac{120}{100}$$

$$\frac{120x}{120} = \frac{3300}{120}$$

$$x = \$27.50$$