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, 34, 37

Test Wednesday

Lesson 7.5 Practice C # 1 - 5 odd

① $36,000 to $40,000

$40,000 - $36,000 = $4,000

$$\frac{\$4000}{\$36,000} = \frac{r}{100}$$

$$\frac{36000r}{36000} = \frac{400000}{36000}$$

$r = 11.11111\ldots$

$R \approx 11.11\%$ increase

③ 5.42 minutes to 5.2 minutes

$5.42 - 5.2 = 0.22$

$$\frac{0.22}{5.42} = \frac{r}{100}$$

$$\frac{5.42r}{5.42} = \frac{22}{5.42}$$

$r = 4.05904\ldots$

$R \approx 4.06\%$ decrease

⑤ 89 hits to 120 hits

$120 - 89 = 31$

$$\frac{31}{89} = \frac{r}{100}$$

$$\frac{89r}{89} = \frac{3100}{89}$$

$r = 34.83146\ldots$

$R \approx 34.83\%$ increase

03-12-13 Gratuity and Commission.notebook

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.

$(0.07)(\$124.95) = \$8.7465$ 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.

$\$143.70 \div 15 = 9.58$

≈ 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

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

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

$x = 49.4835$ savings

$\$329.89 - \$49.4835 = \$280.4065$ Sale price

Part 2: Tax the Sale Price

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

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

$x = 23.1335353625$ tax

$280.4065 + 23.1335353625$

$303.5400\ldots$

$\$303.54$

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?

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

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

$x = \$7.1475$ 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

$\$59 - 20.65 = \$38.35$