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DISCRETE

Date: 1/25/17
TROICI

LESSON #9: PERCENT DECREASE

Steps:	Example:
1) <u>Divide percent by 100</u>	
2) <u>Multiply decimal x salary</u>	
3) <u>Subtract from salary</u>	

Let's Practice (round all answers to the nearest hundredth):

1) Find the new salary of someone who earns \$5000 with a 2% decrease. $2/100 = .02$ $5000 \times .02 = 100$ $\underline{-100}$ <u>\$4900</u>	2) Find the new salary of someone who earns \$1500 with a 2.5% decrease. $2.5/100 = .025$ $1500 \times .025 = 37.5$ $\underline{-37.5}$ <u>\$1462.50</u>
3) Find the new salary of someone who earns \$250 with a 7% decrease. $7/100 = .07$ $250 \times .07 = 17.5$ $\underline{-17.5}$ <u>\$232.50</u>	4) Find the new salary of someone who earns \$400 with a 3.5% decrease. $3.5/100 = .035$ $400 \times .035 = 14$ $\underline{-14}$ <u>\$386</u>
5) Find the new salary of someone who earns \$700 with a 5% decrease. $5/100 = .05$ $700 \times .05 = 35$ $\underline{-35}$ <u>\$665</u>	6) Find the new salary of someone who earns \$1000 with a 10% decrease. $10/100 = .10$ $1000 \times .10 = 100$ $\underline{-100}$ <u>\$900</u>

7) Jesse Jam earns \$552.00 per week and receives a 5% decrease in pay. What is his new pay?

$$552 \times .05 = 27.6$$

$$-27.6$$

$$\boxed{\$524.40}$$

Fill in the chart below. Round all answers to the nearest tenth.

Deductions	Percent of Gross Pay	Amount (before decrease)	Amount (after decrease)
Federal Income Tax:	10.2%	$552 \times .102$ $\$56.30$	$524.4 \times .102$ $\$53.49$
State Income Tax:	3.1%	$552 \times .031$ $\$17.11$	$524.4 \times .031$ $\$16.26$
Social Security:	8.2%	$552 \times .082$ $\$45.26$	$524.4 \times .082$ $\$43.00$
Health Insurance:	2.0%	$552 \times .02$ $\$11.04$	$524.4 \times .02$ $\$10.49$
Total	23.5%	$552 \times .235 = \$129.72$	$524.4 \times .235 = \$123.34$

$$\approx 129.71$$

$$\approx 123.24$$

8) Jane Doe earns \$1590.50 per week and receives a 3.5% decrease in pay. What is her new pay?

$$\begin{array}{r}
 1590.50 \times 0.035 = 55.67 \\
 - 55.67 \\
 \hline
 1534.83
 \end{array}$$

Fill in the chart below. Round all answers to the nearest tenth.

Deductions	Percent of Gross Pay	Amount (before decrease)	Amount (after decrease)
Federal Income Tax:	16.4%	$1590.5 \times .164$ $\$260.84$	$1534.83 \times .164$ $\$251.71$
State Income Tax:	12.5%	$1590.5 \times .125$ $\$198.81$	$1534.83 \times .125$ $\$191.85$
Social Security:	5.8%	$1590.5 \times .058$ $\$92.25$	$1534.83 \times .058$ $\$89.02$
Health Insurance:	1.7%	$1590.5 \times .017$ $\$27.04$	$1534.83 \times .017$ $\$26.09$
Total	36.4%	$1590.5 \times .364 =$	$1534.83 \times .364$

$$\$578.94$$

$$\approx 578.94$$

$$\$558.68$$

$$\approx 558.67$$

9) Liz Giz earns \$452.50 per week and receives a 7% decrease in pay. What is her new pay?

Fill in the chart below. Round all answers to the nearest tenth.

Deductions	Percent of Gross Pay	Amount (before decrease)	Amount (after decrease)
Federal Income Tax:	20.3%		
State Income Tax:	15.2%		
Social Security:	5.2%		
Health Insurance:	2.0%		
Total			

10) Lucy Goosy earns \$405.00 per week and receives a 4.5% decrease in pay. What is her new pay?

Fill in the chart below. Round all answers to the nearest tenth.

Deductions	Percent of Gross Pay	Amount (before decrease)	Amount (after decrease)
Federal Income Tax:	21.6%		
State Income Tax:	15.4%		
Social Security:	7.1%		
Health Insurance:	2.4%		
Total			