

Name: Key
DISCRETE

Date: 9/20/17
TROICI

LESSON #10: TEST #1 REVIEW

1) Jill works for The Gap and earns \$1200 each week. Determine what percent of her pay each deduction consists of:

Deductions		Percent of Gross Pay (round to nearest tenth)
Federal Income Tax:	\$182.40	Percentage $\frac{182.40}{1200} = \frac{x}{100}$ $18240 = 1200x$ $x = 15.2\%$
State Income Tax:	\$99.60	$\frac{99.60}{1200} = \frac{x}{100}$ $9960 = 1200x$ $x = 8.3\%$
Social Security:	\$43.20	$\frac{43.20}{1200} = \frac{x}{100}$ $4320 = 1200x$ $x = 3.6\%$
Total	\$325.20	27.1%

$\frac{\text{deduction}}{\text{gross}} = \frac{x}{100}$

Divide
multiply
subtract
of Add

2) You earn \$1925.00 per week and receive a 1.25% raise. Find the exact amount of the raise.

$$\frac{1.25}{100} = .0125 \times 1925 = 24.06$$

$$24.06 + 1925 = 1949.06$$

3) You earn \$625.00 per week and receive a 6% raise. Find your new earnings

$$\frac{6}{100} = .06 \times 625 = 37.5$$

$$37.5 + 625 = 662.50$$

4) Find the new salary of someone who earns \$4700 with a 1% decrease.

$$\frac{1}{100} = .01 \times 4700 = 47$$

$$4700 - 47 = 4653$$

5) Find the new salary of someone who earns \$1500 with a 3.5% decrease.

$$\frac{3.5}{100} = .035 \times 1500 = 52.50$$

$$1500 - 52.50 = 1447.50$$

6) Warren worked for 47 hours this week. He earns \$8.50 for every hour he works and time and a half for overtime. How much did Warren earn this week?

$$\begin{aligned} \text{Reg hrs} &= 40 & \text{OT hrs} &= 7 \\ \text{Reg rate} &= 8.50 & \text{OT rate} &= 12.75 \\ \text{Reg Pay} &= 340 & + \text{OT pay} &= 89.25 \end{aligned}$$

$$\boxed{\$429.25}$$

7) Garrett worked for 52 hours this week. He earns \$9.50 for every hour he works and time and a half for overtime. How much did Garrett make this week?

$$\begin{aligned} \text{Reg hrs} &= 40 & \text{OT hrs} &= 12 \\ \text{Reg rate} &= 9.50 & \text{OT rate} &= 14.25 \\ \text{Reg Pay} &= 380 & + \text{OT pay} &= 171 \end{aligned}$$

$$\boxed{\$551}$$

8) Arthur's gross pay is \$5000. How much is his net pay if the Federal government takes 23% out in taxes?

$$\frac{23}{100} = .23$$

$$5000 \times .23 = 1150$$

$$5000 - 1150 = \boxed{3850}$$

9) Ashley has a job that pays \$9.80 an hour. Mike has a job that pays \$9.10 an hour. Ashley worked for 50 hours while Mike worked for 55 hours. Both earn time and a half for overtime. Who earned more money and how much more did they make?

Ashley	
Reg hrs = 40	OT hrs = 10
Reg rate = 9.80	OT rate = 14.7
Reg Pay = 392	+ OT Pay = 147

$$\boxed{\$539}$$

Mike	
Reg hrs = 40	OT hrs = 15
Reg rate = 9.10	OT rate = 13.65
Reg Pay = 364	+ OT Pay = 204.75

$$\boxed{\$568.75}$$

Mike earned \$29.75 more

Divide
into MP
Subtract

10) Billy earns \$1124.00 per week and receives a 4% raise. What is his new pay?

$$\frac{4}{100} = .04$$

$$1124 \times .04 = 44.96$$

$$1124 + 44.96 = \boxed{\$1168.96}$$

Deducti ons	Percent of Gross Pay	Amount (after raise)
Federal Income Tax:	.126 $\frac{12.6\%}{100}$	$1168.96 \times .126 = \boxed{\$147.29}$
State Income Tax:	$\frac{4.2\%}{100}$.042	$1168.96 \times .042 = \boxed{\$49.00}$
Social Security :	$\frac{6.8\%}{100}$.068	$1168.96 \times .068 = \boxed{\$79.49}$
Health Insuran ce:	$\frac{3.0\%}{100}$.03	$1168.96 \times .03 = \boxed{\$35.07}$
Total Deducti ons	26.6%	$\boxed{\$310.95}$
Net Pay $\boxed{\$858.01}$		

11) Alex earns \$1250 per week and receives a 5% decrease in pay. What is his new pay?

$$\frac{5}{100} = .05$$

$$1250 \times .05 = 62.50$$

$$1250 - 62.50 = \text{\$}1187.50$$

Deductions	Percent of Gross Pay	Amount (after decrease)
Federal Income Tax:	$-\frac{12.6\%}{100}$ $-.126$	$1187.50 \times .126 = \text{\$}149.63$
State Income Tax:	$\frac{4.2\%}{100}$ $.042$	$1187.50 \times .042 = \text{\$}49.88$
Social Security:	$\frac{6.8\%}{100}$ $.068$	$1187.50 \times .068 = \text{\$}80.75$
Health Insurance:	$\frac{3.0\%}{100}$ $.03$	$1187.50 \times .03 = \text{\$}35.63$
Total Deductions	26.6%	$\text{\$}315.89$
Net Pay		$\text{\$}871.61$

Employee

SSN

Status (Fed/State)

Earnings and Hours	Qty	Rate	Current	YTD Amount
Hourly Rate	25.30	35.00	892.50	22,280.00
Taxes				
Federal Withholding			139.00	6,691.00
Social Security Employee			37.08	1,187.28
Medicare Employee			12.94	410.00
NY Withholding			42.91	1,654.41
NY - Disability Employee			0.00	11.40
			234.93	8,954.09
Net Pay			658.17	19,325.91

11/16/2011
1 WEEK

892.50×52
 $\$ 46410$

Using Joe's paystub above, answer the following questions:	
1) How much money does Joe earn per week before deductions? 892.50	2) How much does Joe make per week after deductions are taken? $\$ 658.17$
3) How much has he earned for the year so far? $GROSS - 28,280$	4) What is Joe's annual salary? $\$ 46410$
5) How much did he pay in federal income tax this week? $\$ 139$	6) What percent of his paycheck goes towards federal income tax? $\frac{139}{892.50} = \frac{x}{100}$ $13900 = 892.50x$ $x = (15.6\%)$
7) How much did he pay for medical insurance this week? $\$ 12.94$	8) What percent of his paycheck goes towards medical insurance? $\frac{12.94}{892.50} = \frac{x}{100}$ $1294 = 892.50x$ $x = (1.4\%)$

9) If Joe has to put 2% of his salary into social security, how much would that be (Hint: use gross pay)? $\rightarrow 892.50$

$$\frac{2}{100} = .02$$

$$892.50 \times .02 = \boxed{17.85}$$

10) If Joe receives a 5% raise, how much will he take home?

$$\frac{5}{100} = .05$$

$$892.50 \times .05 = 44.63$$

$$892.50 + 44.63 =$$

$$\boxed{937.13}$$