Warm-Up

FAMILY SHOE STORE

Employee	Sales	Rate of Commission	Commission
McKee, J.	$9500	3% = 0.03	$285.00
Brown, D.	$10,200	3% = 0.03	$306.00
Poznick, M.	$8875	4%	$355.00
Washington, R.	$11,560	5%	$578.00

Find the missing rates and commissions (4)

$$\text{amount commission} = \text{commission rate} \cdot \text{Sales}$$

$$\frac{355}{8875} = x \cdot \frac{8875}{8875}$$

$$8875\overline{)355.00} \rightarrow \$4\%$$
(quotient 0.04)

HW

Amount Sale	Sales Tax Rate	Amount Sales Tax	Total
	$\cdot$	$=$	Amount + Sales tax amount

8) $11,789   7.5% 7½%

$$11789 \cdot 0.075 = \$884.18   \$12,673.18$$

```
    5 6 6
    3 4 4
   11789
 ×    75
 ----------
  5 8 9 4 5
 8 2 5 2 3 0
 ----------
 8 8 4.1 7 5
```

Discount Formula $\text{amount of discount} = \text{rate of discount} \cdot \text{original price}$

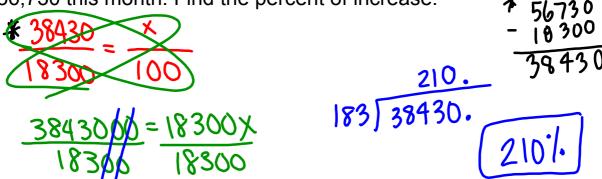Sale Price Formula $\text{Original price} - \text{amount of discount} = \text{sale price}$

Ex 5 Finding a Sale Price

The Oak Mill Furniture Store has a home entertainment center with an original price of $840 on sale for 15% off. Find the sale price of the entertainment piece.

$$
\begin{array}{r}
^2840 \\
\times\ 15 \\
\hline
4200 \\
8400 \\
\hline
12600
\end{array}
$$

$840 \cdot 0.15 =$ amount of discount
$126.00

Sale price

$$
\begin{array}{r}
840 \\
-126 \\
\hline
\$714
\end{array}
$$

Percent of Change

Percent of Increase $\dfrac{\overset{part}{\text{amount of}}}{\underset{whole}{\text{increase}}}= \dfrac{percent}{100}$

Ex 6 Finding the Percent of Increase

Attendance at country parks climbed from 18,300 last month to 56,730 this month. Find the percent of increase.

$*\ \dfrac{38430}{18300} = \dfrac{x}{100}$

$\dfrac{3843000}{18300} = \dfrac{18300x}{18300}$

$*\ \begin{array}{r} 56730 \\ -\ 18300 \\ \hline 38430 \end{array}$

$183\overline{)38430.}\ \ 210.$

$\boxed{210\%}$

Percent of Decrease $\dfrac{\overset{part}{\text{amount of}}}{\underset{whole}{\text{decrease}}}= \dfrac{percent}{100}$

Ex 7 Finding the Percent of Decrease

The number of production employees this week fell to 1406 people from 1480 people last week. Find the percent of decrease.

$*\ \dfrac{74}{1480} = \dfrac{x}{100}$

$\dfrac{7400}{1480} = \dfrac{1480x}{1480}$

$*\ \begin{array}{r} 1480 \\ -\ 1406 \\ \hline 74 \end{array}$

$148\overline{)740.}\ \ 5.$

$\boxed{5\%}$