## SOL 6.2 - Percents

## The Meaning of Percents

| Per <br> Means <br> Divide by | Cent <br> Means <br> 100 |  | Percent <br> Means <br> Divide by 100 |
| :---: | :---: | :---: | :---: |
| Seven <br> Divided by <br> 100 | $\frac{7}{100}$ | Seven <br> Per <br> Cent | $7 \%$ |

## Changing: Decimals to Percents

1. The decimal need to be written to the hundredths place, that number is the percent
2. SHORTCUT: move the decimal two places to the right

## Method \#1

$$
0.62=62 / 100=62 \%
$$

$$
0.07=7 / 100=7 \%
$$

$$
0.7={ }^{70} / 100=70 \%
$$

## Method \#2

$0.125=12.5 \%$
$0.375=37.5 \%$
$0.625=62.5 \%$

## Changing: Repeating Decimals to Percents

- Move the decimal two places to the right, and add on the repeating number as needed.

$$
\begin{aligned}
\frac{1}{3}=0 . \overline{3} 3 & =33 \% & \overline{2}=0 . \overline{6} 6 & =67 \% \\
& =33 \% & & =66 \% \\
& =33.3 \% & & =66 . \overline{6} \% \\
& =331 / 3 \% & & =662 / 3 \%
\end{aligned}
$$

## Changing: Fractions to Percents

1. If the denominator is 100 then the numerator is the percent.
2. If the denominator is a factor of 100 , multiply the whole fraction to make a denominator of 100 , then the numerator is the percent.
3. If the fraction does not have a denominator that is a factor of 100 , divide and then change to a percent.

| Method \#1 | Method \#2 | Method \#3 |
| :--- | :---: | :---: |
| $\frac{85}{100}=85 \%$ | $\frac{3}{10} \times 10=\frac{30}{100}$ | $\underline{3}=0.50=50 \%$ |
| $\frac{23}{100}=23 \%$ | $\frac{4}{25} \times 4=\frac{16}{100}$ | $\underline{4}=0.44=44 \%$ |

## Inequalities

< Less than
$\leq$ Less than or equal to
> Greater than
$\geq$ Greater than or equal to

## Comparing and Ordering

- ascending - goes up or gets bigger
- Descending - goes down or gets smaller


## Fraction

| Fraction |  | Decimal |  | Percent |
| :---: | :---: | :---: | :---: | :---: |
|  | Divide | $.125$ | $\times$ by 100 or | $13 \%$ |
| $\frac{1}{8}$ |  |  | move dec 2 places |  |
|  |  |  |  |  |
|  | Convert |  | move dec 2 |  |
|  | 4 Sing proper |  | places or $\div \text { bv } 100$ |  |

