## ANSWER, FIND, and SHADE

## ANSWERS

## Important Equations You Should Know

Fill in the charts, search the picture, and only shade in the answers that you wrote in each chart.
Almost every country in the world uses Celsius as the unit of measure for temperature. The United States is one of the few exceptions and they use Fahrenheit. Below is a Celsius and Fahrenheit chart which is missing information. Use the equations below to fill in the chart.

$$
F=\frac{9}{5} C+32 \quad \text { or } \quad C=\frac{5}{9}(F-32)
$$

| F = Fahrenheit | C = Celsius |
| :---: | :---: |
| 50 | 10 |
| 95 | 35 |
| 14 | -10 |
| 32 | 0 |
| 77 | 25 |
| 68 | 20 |
| 23 | -5 |



The distance, rate, and time equation is used often in the real world. You might have used it without even knowing. It can help you determine how far you've gone, how much time it will take to get from one place to another, or tell you how fast you are going. Below is a distance, rate, and time chart. Use the information and the equations below to fill in the chart.

$$
d=r \times t \quad \text { or } \quad r=\frac{d}{t} \quad \text { or } \quad t=\frac{d}{r}
$$

| $\boldsymbol{d}=$ Distance | $\boldsymbol{r}=$ Rate | $\boldsymbol{t}=$ Time |
| :---: | :---: | :---: |
| 30 kilometers | $10 \mathrm{~km} / \mathrm{h}$ | 3 hours |
| 450 miles | 300 mph | 1.5 hours |
| 96 miles | 12 mph | 8 hours |
| 9 kilometers | $18 \mathrm{~km} / \mathrm{h}$ | 30 minutes |
| 720 kilometers | $120 \mathrm{~km} / \mathrm{h}$ | 6 hours |

The percent of change equation is used a lot in business and statistics. It is used to find out how much something has changed over time. The final answer is in a percent. If the percent is negative then the change has decreased and if it is positive it has increased. Below is a percent of change chart. Use the information and the equation below to fill in the chart.
Percent of Change $=\frac{\text { Change }}{\text { Original Amount }} \times 100$

| \% of Change | Original Amount | Change |
| ---: | :---: | :---: |
| $10 \%$ | 30 | 3 |
| $75 \%$ | 8 | 6 |
| $4 \%$ | 200 | 8 |
| $40 \%$ | 5 | 2 |
| $8 \%$ | 150 | 12 |

The slope ratio is based on the coordinate system. It uses the rise or the change in the $y$-coordinates, and the run or the change in the x-coordinates to determine the steepness or slant of a line. It also tell us if a line is increasing (goes up from left to right) or decreasing (goes down from left to right). Use the information and the equations to fill in the chart to the right.

$$
m=\frac{\text { rise }}{\text { run }} \text { or run }=\text { rise } \div m
$$

| $\boldsymbol{m}=$ slope | run $=$ change in $\boldsymbol{x}$ | rise $=$ change in $\boldsymbol{y}$ |
| :---: | :---: | :---: |
| 0.5 or $\frac{1}{2}$ | 8 | 4 |
| 2 | 3 | 6 |
| $1 \frac{7}{10}$ | 10 | 17 |
| $\frac{1}{3}$ | 30 | 10 |
| 15 | 7 | 105 |

