$\qquad$
Mr. Tallman

## Do Now

## Use the percent proportion to solve the following.

There are 15 marbles in a bag. $40 \%$ of those marbles are blue. How many marbles are blue?

Part: $\qquad$
Whole: $\qquad$
Percent: $\qquad$

## Lesson 34 - Solving Percents using the Percent Equation

In $6^{\text {th }}$ grade, we solved percents using the percent proportion. Now, we will solve percents using the percent formula.

| Percent Proportion (6 ${ }^{\text {th }}$ Grade) | Percent Equation (7th Grade) |
| :---: | :---: |
|  | **ALL PERCENTS MUST BE TURNED INTO |
| part \% |  |
| whole 100 | Part $=$ percent (whole) |

Example 1) Complete the table below. Identify the part, whole, and percent. Then write an equation. DO NOT SOLVE.

|  | Part (is) | Whole (of) | Percent | Equation |
| :--- | :--- | :--- | :--- | :--- |
| What number is $10 \%$ of 56? |  |  |  |  |
| $90 \%$ of a number is 180 |  |  |  |  |
| The 20 girls in the class <br> represent 55\% of the <br> students in the class |  |  |  |  |
| A softball team won 95\% of <br> 120 games played. How <br> many games did they win? |  |  |  |  |

Example 2) $80 \%$ of what number is 20 ?
Part: $\qquad$
Whole: $\qquad$
Percent: $\qquad$

Example 3) A volleyball team won $90 \%$ of 80 games played. How many games did they win?

Part: $\qquad$
Whole: $\qquad$
Percent: $\qquad$
Now, You Try! Use the percent formula to answer the following questions.
4) 6 is $30 \%$ of what number?

Part: $\qquad$
Whole: $\qquad$
Percent: $\qquad$
5) In a bag of candy, $25 \%$ of the 300 pieces are red. How many pieces of candy are red?

Part: $\qquad$
Whole: $\qquad$
Percent: $\qquad$
6) What is $5 \%$ of 120 ?
7) $40 \%$ of the students on a field trip love the museum. If 20 students love the museum, how many students are on the field trip?
8) There are 28 students in a class. Sixteen of those students are boys. What percent of the class are girls?
9) Donovan took a math test and got 35 correct answers and 10 incorrect answers. What percent of his answers were correct? Round to the nearest tenth of a percent.
10) A student answered 86 problems on a test correctly and received a grade of $98 \%$. How many problems were on the test if the problems were worth the same number of points? Round to the nearest whole number.

