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Date: $\qquad$ Core/Period: $\qquad$

## Expressions, Equations and Inequalities Guided Notes



List characteristics of each "item" above and then create a Venn diagram to compare and contrast similarities and differences.
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Date: $\qquad$ Core/Period: $\qquad$
I. Categorize each of the following mathematical "items" into the proper columns:

| $5 \mathrm{x}+3 \mathrm{x}+2 \mathrm{x}$ | 45 | $45 \mathrm{x}-4=86$ | $4+9 \mathrm{y}>36$ | $5-3+12 \mathrm{x} 2$ | $9<23 \mathrm{~b}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{t}-7=7$ | $2 \mathrm{w}+3=23$ | $98 \div 2 \mathrm{x} \leq 14$ | $\mathrm{u}-5 \geq 12$ | $5 \mathrm{~d}-\mathrm{d}+\mathrm{b}$ | $7 \mathrm{~g}=\frac{10}{2 g}$ |


| Expressions | Equations | Inequalities |
| :--- | :--- | :--- |
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II. Write each "statement" mathematically and identify it as an expression, equation, or inequality:

1. Each fountainhead had two nozzles each and there were 5 faucets.
$\qquad$ .
2. All three of the fountainheads sprayed out the same amount of water, which totaled twelve thousand gallons of water.
3. The two filters processed at least five-hundred-thousand gallons of water a week.
