Sometimes a little knowledge goes a long way. For example, if you're baking in the kitchen, knowing a few things about ratios might just save you from a cooking disaster. A ratio is a measure of two or more quantities in relation to each other, such as the ratio between sugar and butter or flour and salt. Switching those proportions could lead to some unexpected results!

The "recipe" for your game will be a simple combination of heroes and enemies and the ratios between them. But be careful to get the recipe just right! If you have a ratio of 20 enemies to one hero, for example, it's going to be a tough level! Use the boxes below to map out how many enemies you want to have on each of your game's first four levels. This will help you build a game that becomes harder to play as it progresses. Once you've mapped out the number of enemies, determine the total and then figure out the percentage of enemies that appear on each of the levels.
(LEVEL 1: 1 Hero \# of Enemies: Ratio:
\% of Total Enemies:

LEVEL 3: 1 Hero \# of Enemies: Ratio:
\% of Total Enemies:
$\qquad$
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After you build your game in Gamestar Mechanic (www.gamestarmechanic.com), play it through a few times to see if your ratios work on each level. Then determine how many weapons, health packs, etc. you will need on each level. For example, you might want to supply more health packs on levels that have more enemies...or not!

CHALLENGE ACTIVITY:
Play other people's games and determine their enemy ratios!

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