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# Fall 2021 Precalc Lesson 15.3

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Do now

**be sure to:** take a seat near the front of the room. Get out your binder. Copy the **goal** and **date**. Read through the information below. Write down any questions you have!

**What you should have done with your video game:**

1. Add your own images for player, danger, and target
2. Make sure the danger and target are moving horizontally, by modifying the `update-danger()` and `update-target()` functions
3. Make sure that the player can move up and down, by modifying the `update-player()` function
4. **Advanced:** use the `posn()` function to make sure the characters in the game can move in more interesting directions.

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**class:** precalc **goal:** HDW use piecewise functions and `posn()` to control player movement in our video game?



## B24 rules

Welcome to our new room, B24! Please read the information below:

1. When you come in, please find a seat at a desk (if one's available) or one of the **six** closest desks to the screen. **Do not sit in the back of the classroom.** We'll conduct the do now and mini lesson from here.
2. When I dismiss you for independent work, find a sit at one of the computer workstations.
3. **No food or drink by the computers.**
4. At the end of the period, you'll be directed to assemble for the exit ticket/debrief. Log out of your computer, and **quietly** return to a seat near the front.

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## framing

- **what:** use piecewise functions and `posn()` to control player movement in our video game
- **why:** this gives us more control over how the player moves in the game
- **where to:** finish our game this week

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## Coding to learn: Activity

Be sure to:

1. Read through the video game expectations (to your right).
2. Move to your computer, open your saved game file. If your game doesn't yet meet expectations, start working on it!
3. When you're done with that see the next slide (on Google Classroom). Work on extending your game.
4. If you have any questions, raise your hand!

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## Coding to learn: extension Activity

Now is your time to customize your game! Try implementing some of the following features, or make your own!

- **Warping** - program one key to "warp" the player to a set location, such as the center of the screen
- **Boundaries** - change update-player such that PLAYER cannot move off the top or bottom of the screen
- **Wrapping** - add code to update-player such that when PLAYER moves to the top of the screen, it reappears at the bottom, and vice versa
- **Hiding** - add a key that will make PLAYER seem to disappear, and reappear when the same key is pressed again

**Reminder:** Use `#` to add comments to code!

Adding useful comments to code is an important part of programming. It lets us leave messages for other programmers, leave notes for ourselves, or "turn off" pieces of code that we don't want or need to debug later.

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## reflection

**Be sure to:** get out a sheet of loose leaf paper. Write your name and the date on top. Answer each question below with a complete sentence. Be prepared to hand in as you leave!

1. What would it take to make the player move left and right?
2. Why can't we do this without changing the contract?

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