

## **Notes: 1.3 Piecewise Functions**

Piecewise Functions have a single day lesson in Alg 2A which is often skipped based on time and strength of population that year. Students in this HPC course have an easier time connecting the Families of Functions, Transformations, and Domain to write Piecewise Functions.

From 1.2 Introduction to interval notation... use the examples on the third page to write a piecewise function as a class. I often use different colored pencils for each part (the kid who zones out for 30 seconds is not lost then)

Have a discussion about using interval notation or inequalities for the domain restrictions as well as Function notation. (Include conversations about  $($  vs  $[$  ...)

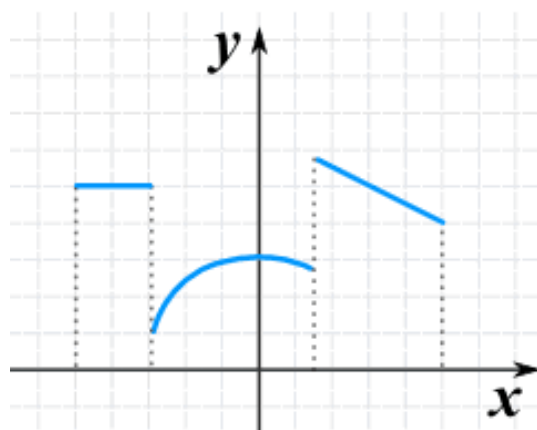
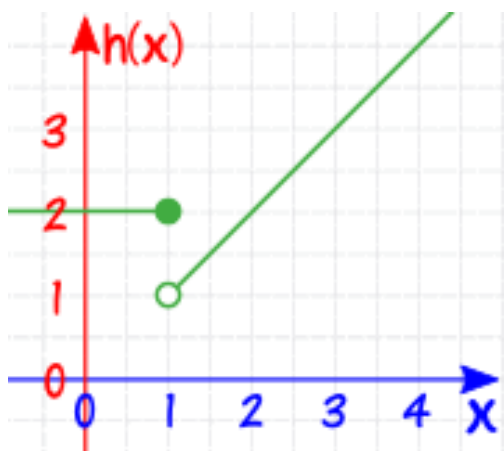
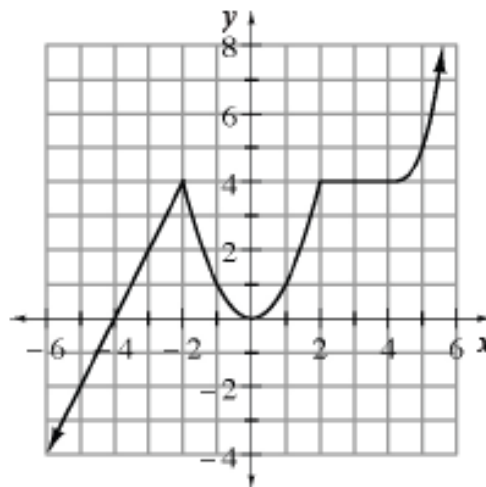
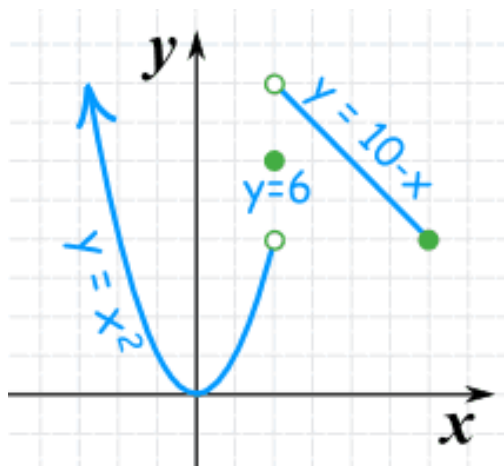
If you feel like students need additional examples or have teams try one before passing 1.3 Piecewise Functions out, numbers 17 & 18 on the last page are good options. Then they can "phone a friend" from another team or the teacher to check before going on.

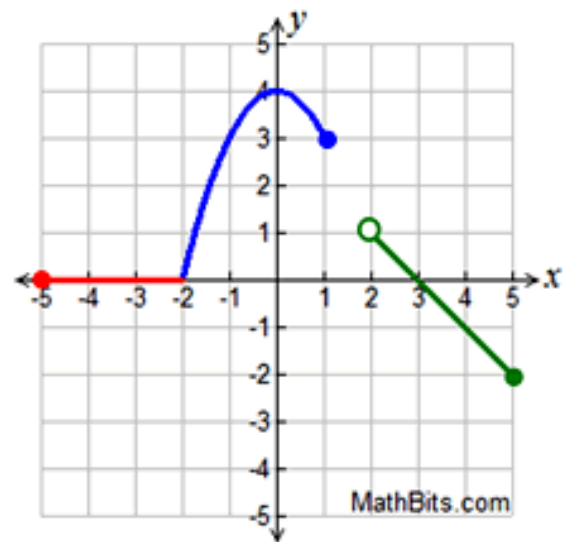
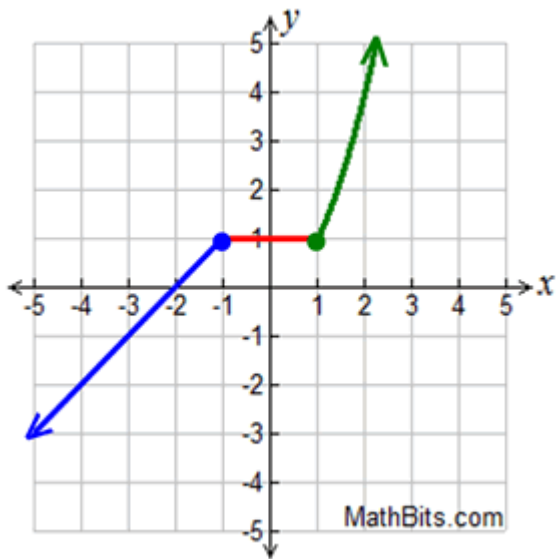
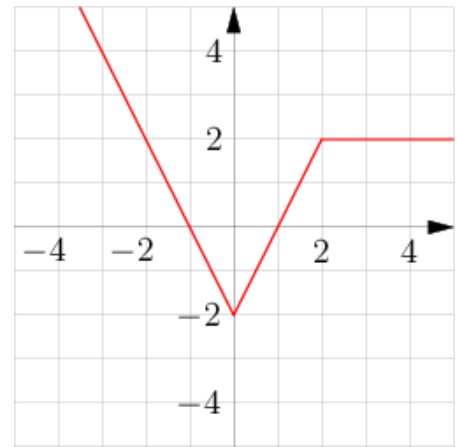
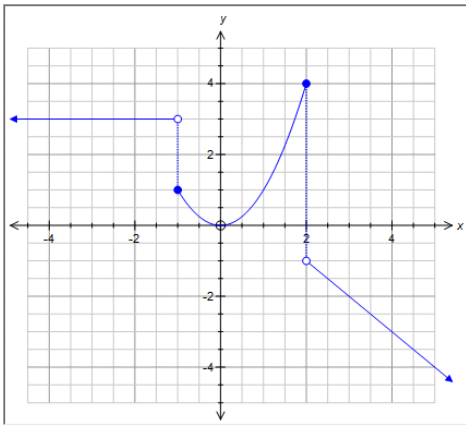
Normally, I have the first eight completed in pairs or teams and the second sheet solo. Another option is to have them complete the first four and then switch teams for the second four before going solo. (I often with give them a set time and then switch with no harm if they only get through three)

### 1.3 Piecewise Functions

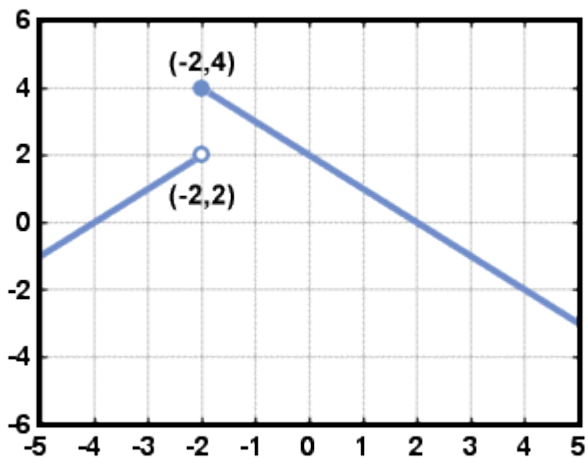
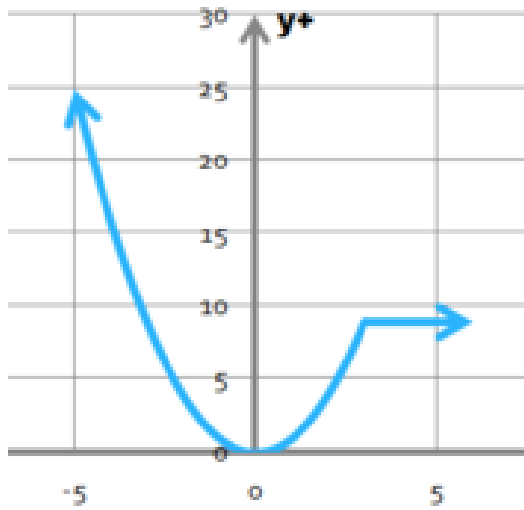
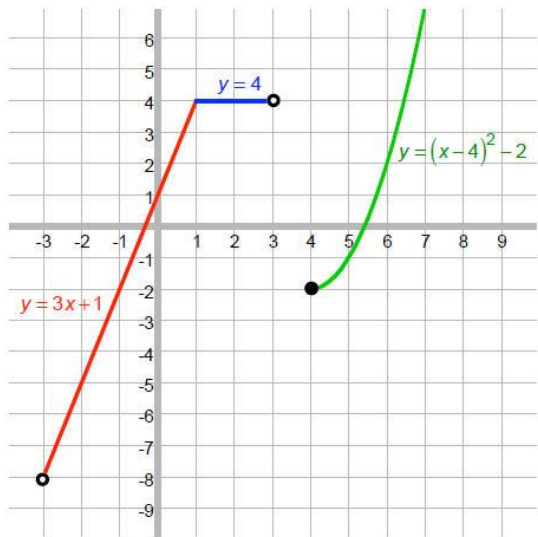
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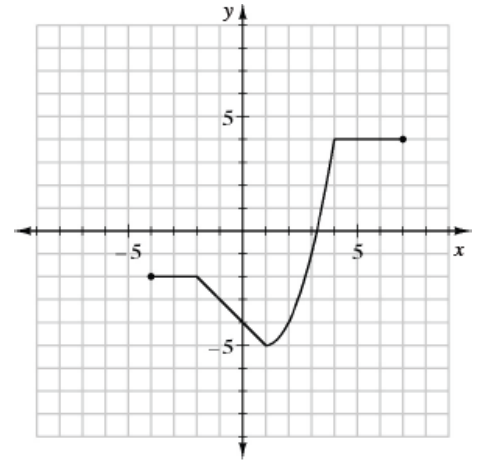
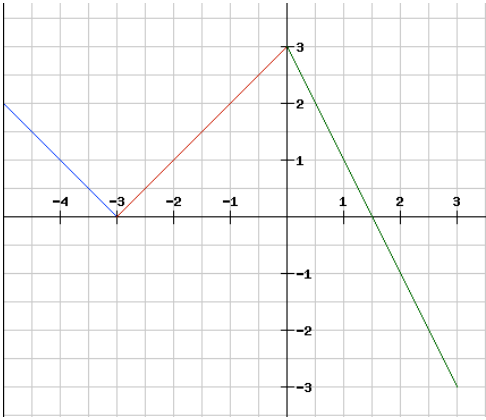
For each of the following, write the functions with the proper domains.





On your own:





Challenge Accepted!

