

Why use this resource?

This task asks students to describe four piecewise graphs.

The process of trying to describe the features of the graphs, in order for others to sketch a graph they haven't seen, might naturally get students talking about the domains of different sections and help them develop their own ideas of how we might write equations of piecewise functions. To take the task further, a set of equations that match to some of the graphs is provided. In order to pair them up, students will need to create some missing graphs and equations themselves. This process is intended to highlight that the equation for a piecewise graph may be written more than one way and to show the importance of being accurate with inequality signs.

Preparation

Depending on the approach chosen and whether the further activity is required cards of the four graphs might be needed for the main task and the printable equation cards might need preparing.

Possible approach

If this is done in a classroom setting, then one suggestion is to group students into fours and have each student describe one graph to the others in their group, who try to sketch what is being described. It might also be done as a class activity with different students taking turns to describe a graph for the class and see if the explanations and sketches get better with each attempt.