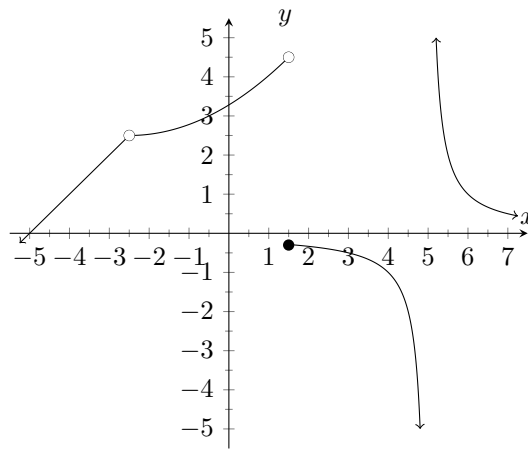# POI-Discontinuities Practice

Practice for Points of Interest - Discontinuities.

Problem **1** *Consider the following graph.*

Does the above graph have any hole discontinuities?

Multiple Choice:

(a) *Yes* ✓

(b) *No*

Problem **1.1** *What is the approximate x-value of the hole?* $\boxed{-2.5}$

Feedback(`attempt` ***):*** *A hole is the type of discontinuity that is a single missing point in an otherwise continuous graph. This may not look like it quite right (another example of graphing being misleading, but not on purpose this time) but the x-value is actually −2.5.*

Problem **1.1.1** *Is there a jump discontinuity?*

Multiple Choice:

(a) *Yes* ✓

Learning outcomes:

(b) *No*

Problem   **1.1.1.1**   *What is the approximate x-value of the jump discontinu-ity?* $\boxed{1.5}$

Feedback(`attempt`*):*   *A jump discontinuity is the type of discontinuity that has a finite vertical jump between the end points.*

Problem   **1.1.1.1.1**   *Is there an infinite discontinuity?*

Multiple Choice:

(a) *Yes* ✓

(b) *No*

Problem   **1.1.1.1.1.1**   *What is the approximate x-value of the infinite discon-tinuity?* $\boxed{5}$

Feedback(`attempt`*):*   *An infinite discontinuity is the type of discontinuity that has a vertical asymptote.*