Graph Factored Polynomials: Intercepts, Multiplicity, and End Behavior

Multiplicity behavior and sign-table template



Three qualitative local behaviors at a common intercept; hypothetical unit steps of 1.

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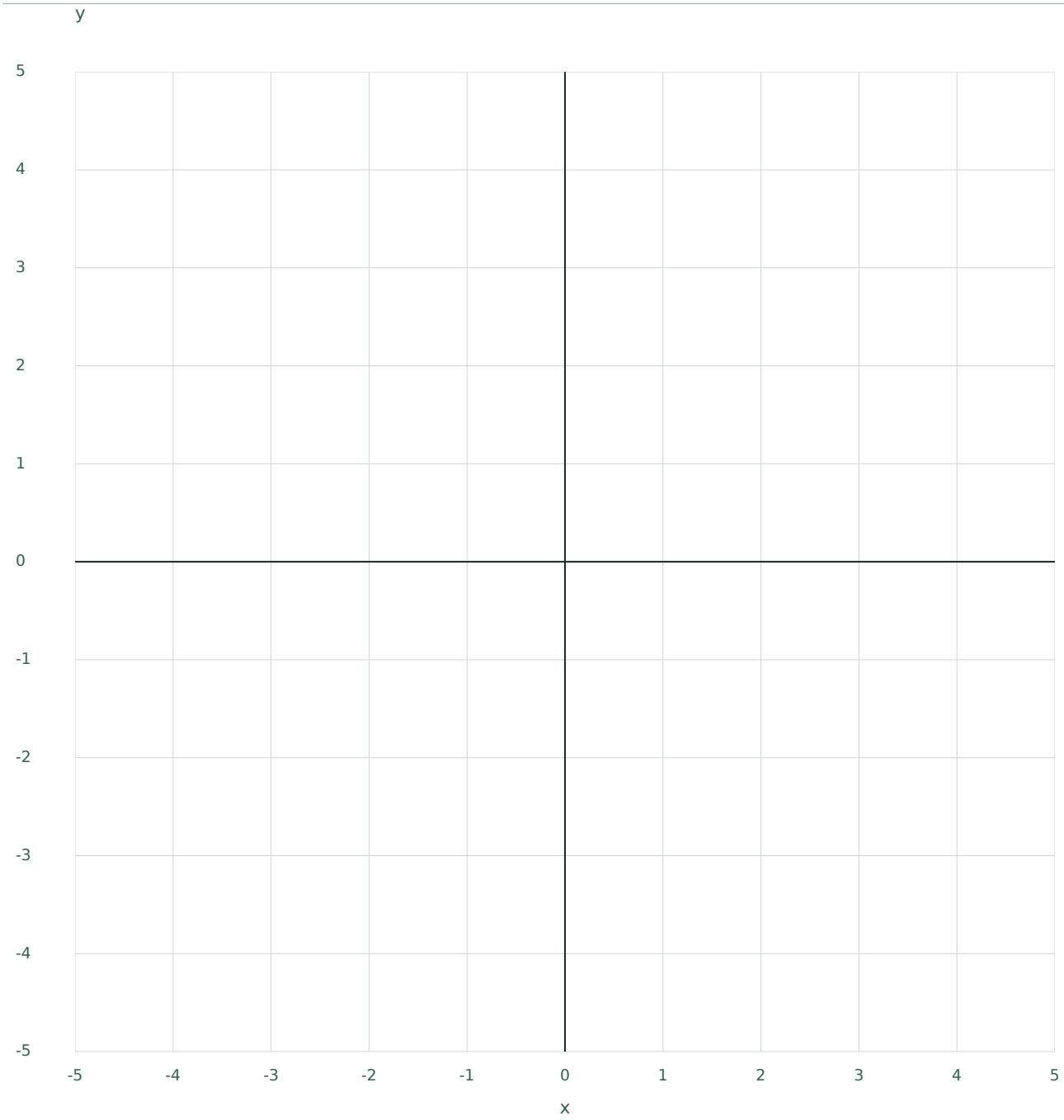
Sign-table template with three intervals

Template only; intervals are placeholders.

Interval	Test x-value	Sign of each factor	Sign of f(x)
$x < r1$			
$r1 < x < r2$			
$x > r2$			

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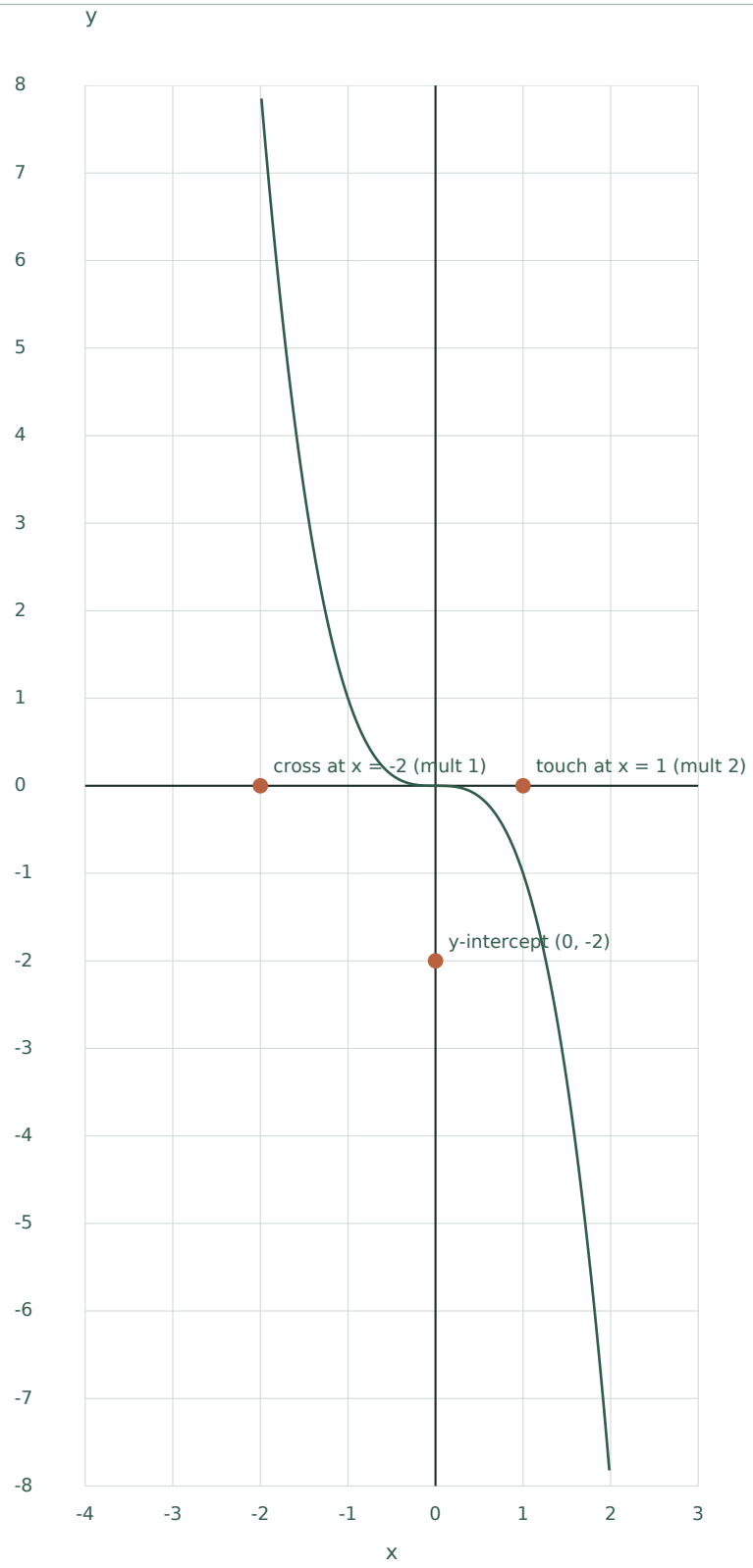
Blank coordinate grid, hypothetical unit steps of 1



Blank axes for qualitative sketching; hypothetical unit steps of 1.

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Worked example: f(x) = -(x + 2)(x - 1)^2



Qualitative sketch; valid alternatives with different heights but same structural features are accepted.