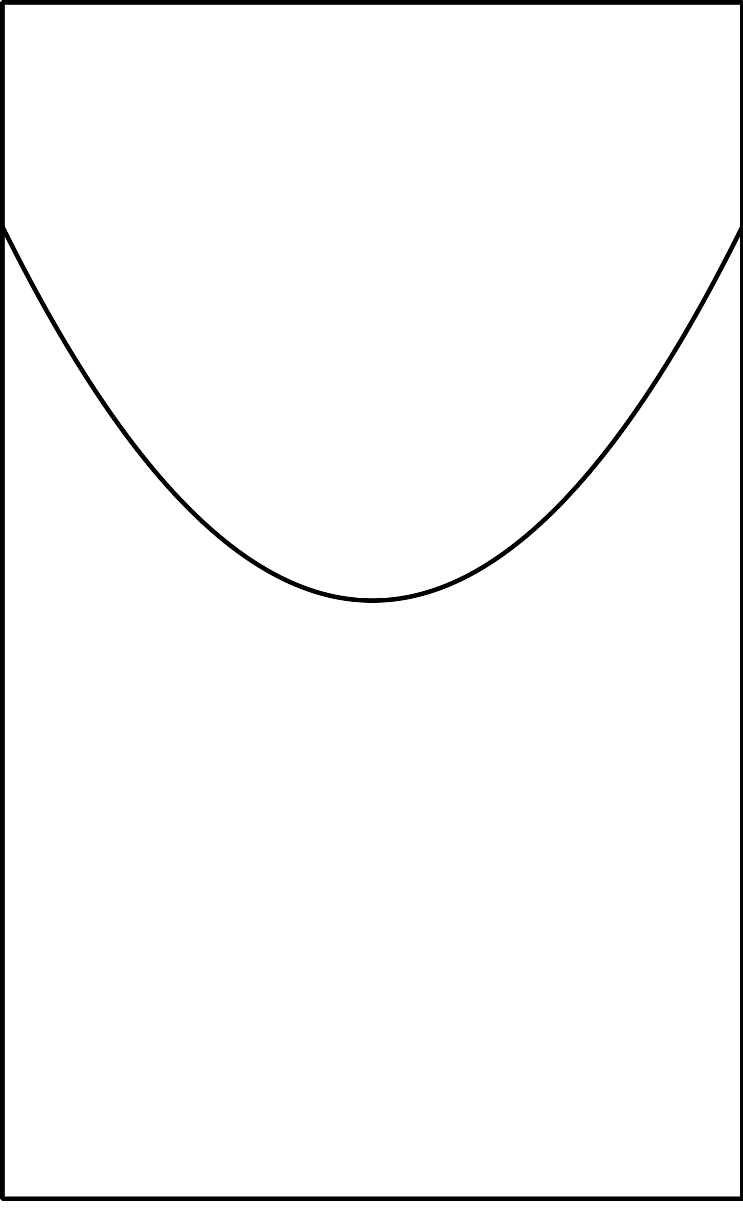
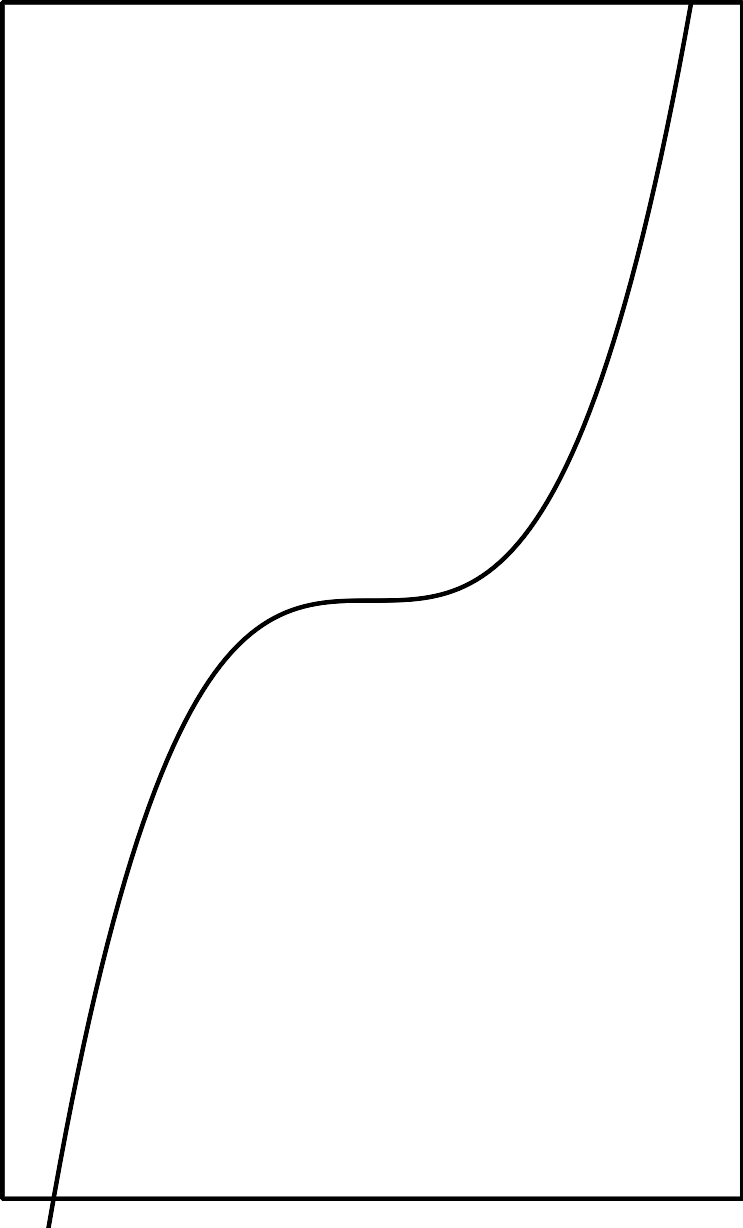
## Unit 3 Lesson 8: Cubes and Cube Roots

### 1 Put Your Arm(s) Up (Warm up)

#### Student Task Statement

How are these graphs the same? How are they different?



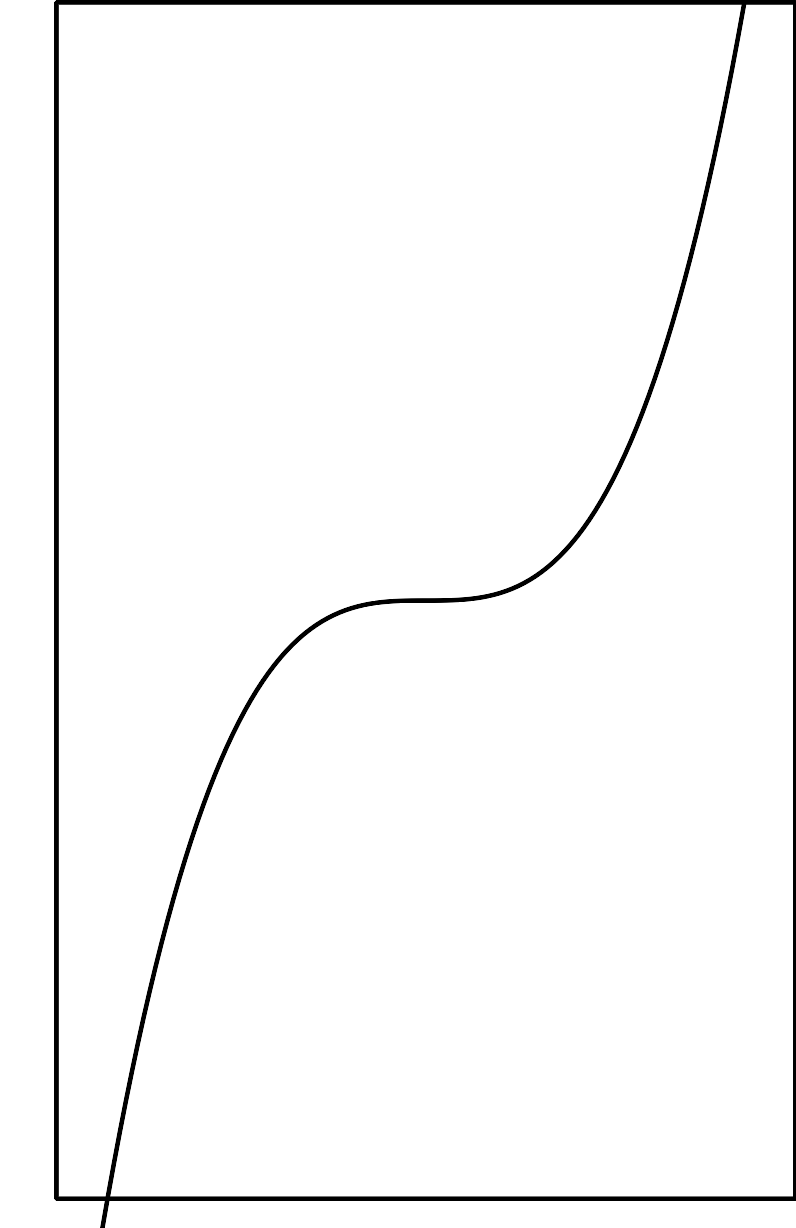


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### 2 Finding Cube Roots with a Graph

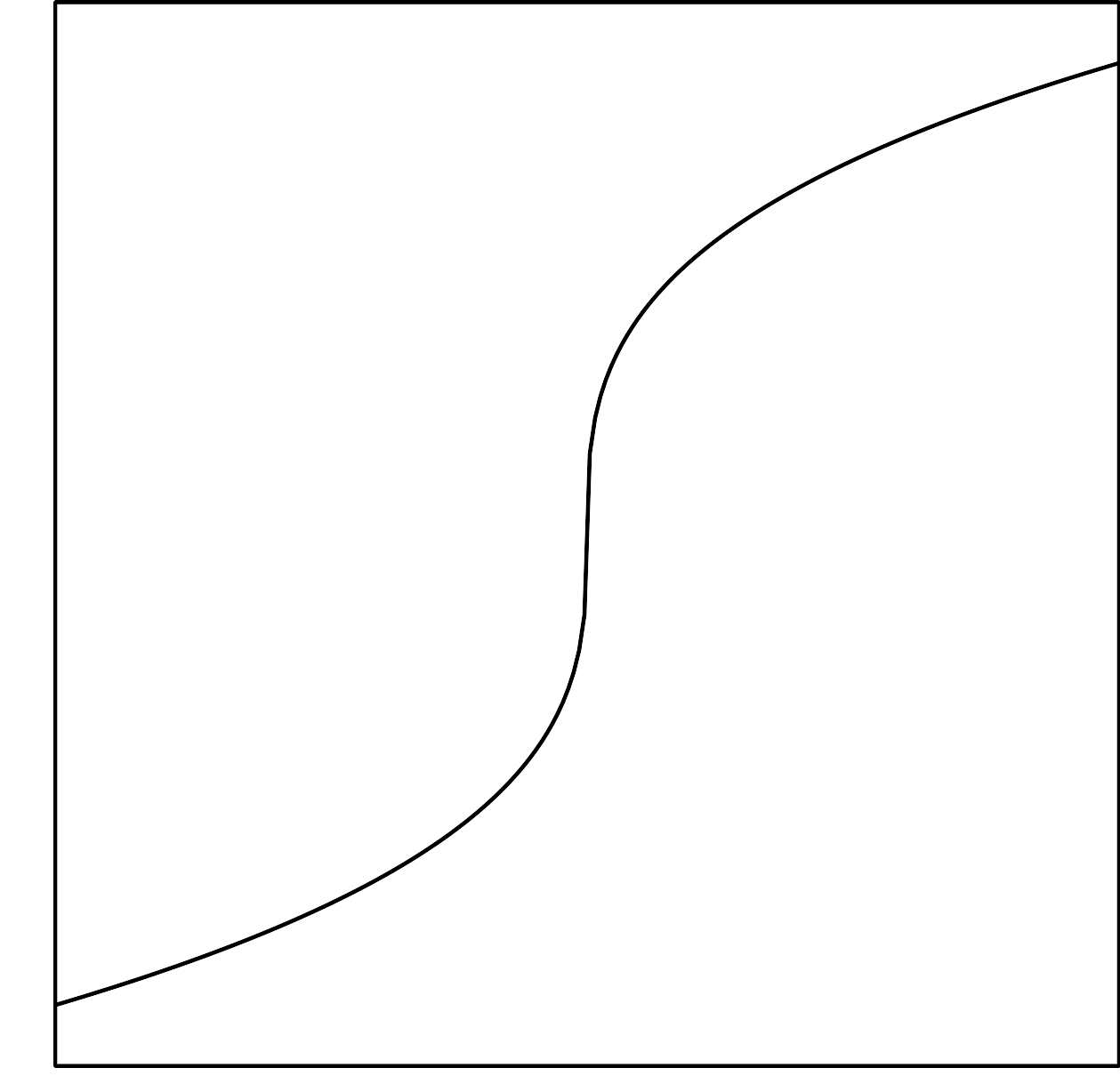
#### Student Task Statement

How many solutions are there to each of the following equations? Estimate the solution(s) from the graph of . Check your estimate by substituting it back into the equation.



### 3 Cube Root Equations (Optional)

#### Student Task Statement



1. Use the graph of to estimate the solution(s) to .
2. Use the meaning of cube roots to find an exact solution to the equation . How close was your estimate?
3. Find the solution of the equation using the meaning of cube roots. Use the graph to check that your solution is reasonable.

### 4 Solve These Equations With Cube Roots in Them

#### Student Task Statement

Here are a lot of equations:

1. Without solving, identify 3 equations that you think would be the least difficult to solve and 3 equations that you think would be the most difficult to solve. Be prepared to explain your reasoning.
2. Choose 4 equations and solve them. At least one should be from your “least difficult” list and at least one should be from your “most difficult” list.



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