Answer to Question #84614 - Math - Algebra

Question:

Is $125x^8$ a perfect cube? Why or why not?

Solution:

$125x^8$ is not a perfect cube because it cannot be written as a cube of a whole term.

125 can be written as 5^3. But x^8 cannot be written as a perfect cube unless x is a perfect cube. Thus $125x^8$ is a perfect cube only when x is a perfect cube. Otherwise $125x^8$ is not a perfect cube.