Problem: You are tasked with implementing a simple inventory system for a store. Create a program that models the inventory using structs, enums, and methods. The inventory should contain products, each with a unique identifier, name, price, and quantity. Implement the following functionalities:

- 1. Define a struct **Product** with fields for the identifier (an integer), name (a string), price (a floating-point number), and quantity (an integer).
- 2. Implement a method <u>`new\_product`</u> for the <u>`Product`</u> struct that creates a new product instance with the given identifier, name, price, and quantity.
- 3. Implement a method <u>`calculate\_total\_value</u>` for the <u>`Product</u>` struct that calculates and returns the total value of the product (price multiplied by quantity).
- 4. Implement a struct Inventory that holds a collection of products.
- 5. Implement a method add\_product for the Inventory struct that adds a new product to the inventory.
- 6. Implement a method <u>`remove\_product`</u> for the <u>`Inventory`</u> struct that removes a product from the inventory based on its identifier.
- 7. Implement a method 'get\_product' for the 'Inventory' struct that retrieves a product from the inventory based on its identifier.
- 8. Implement a method update\_product\_quantity for the Inventory struct that updates the quantity of a product based on its identifier.

Your task is to implement the above functionalities and demonstrate their usage by adding, removing, retrieving, and updating products in the inventory.