Yes.

**Output:**

Thor is now a level 2 warrior.



No.

**Reason:**

Hero is an abstract class and cannot be instantiated.



Yes.

**Output:**

Thor attacks Althea. Does 5 damage.



No.

**Reason:**

The static type of warrior is Warrior. It cannot be bind with an instance of type Healer, which is neither type Warrior nor the subtype of Warrior.



Yes.

**Output:**

Thor attacks Thor. Does 5 damage.

Althea heals Althea by 0 points.



No.

**Reason:**

The **static type** of **hero** is **Hero**; while the **static type** of **warrior** is **Warrior**, which is the **subtype** of Hero.

Hence warrior cannot be bind with hero, although the **dynamic** type of hero is Warrior, which is in accord with warrior. The reason is that during the **compile time**, the compiler can only **judge from static type** and consider this **implicit downcasting** is **unsafe**.

Furthermore, in this case, we can safely use **explicit downcasting warrior = (Warrior) hero;** to make it work, as we can ensure the dynamic type of hero beforehand.