

Homework 9

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Statement	Variable Values
	$m \rightarrow 143$ $k \rightarrow 70$
<code>m.transferFrom(k);</code>	
	$m \rightarrow$ <input type="text" value="70"/> $k \rightarrow$ <input type="text" value="70"/>

1)

- 2) Because an immutable type cannot be changed, but transferFrom changes “this” and changes the argument to it’s original form, so it’ll be contradicting

Statement	Variable Values
private static void swap1(int i1, int i2) {	
	i1 = <input type="text" value="7"/> i2 = <input type="text" value="12"/>
int tmp = i1;	
	i1 = <input type="text" value="7"/> i2 = <input type="text" value="12"/> tmp = <input type="text" value="7"/>
i1 = i2;	
	i1 = <input type="text" value="12"/> i2 = <input type="text" value="12"/> tmp = <input type="text" value="7"/>
i2 = tmp;	
	i1 = <input type="text" value="12"/> i2 = <input type="text" value="7"/> tmp = <input type="text" value="7"/>
}	
Start tracing here	
int x = 7, y = 12;	
	x = <input type="text" value="7"/> y = <input type="text" value="12"/>
swap1(x, y);	
	x = <input type="text" value="7"/> y = <input type="text" value="12"/>

3)

Statement	Variable Values
private static void swap2(String s1, String s2) {	
	s1 → legends s2 → leaders
String tmp = s1;	
	s1, tmp → legends s2 → leaders
s1 = s2;	
	s1, s2 → leaders tmp → legends
s2 = tmp;	
	s1 → leaders s2, tmp → legends
}	
Start tracing here	
String x = "legends", y = "leaders";	
	x → legends y → leaders
swap2(x, y);	
	x → legends y → leaders

Statement	Variable Values
private static void swap3(NaturalNumber n1, NaturalNumber n2) {	
	n1 → 41 n2 → 78
NaturalNumber tmp = n1;	
	n1, tmp → 41 n2 → 78
n1 = n2;	
	n1, n2 → 78 tmp → 41
n2 = tmp;	
	n1 → 78 n2, tmp → 41
}	
Start tracing here	
NaturalNumber x = new NaturalNumber2(41), y = new NaturalNumber2(78);	
	x → 41 y → 78
swap3(x, y);	
	x → 78 y → 41