

Question 6

a) $i=3, j=5, k=7$

if $i < j$

$3 < 5,$

if $j < k$

$5 < 7$

$i = j$

$\therefore i = 5$

$i = 5, j = 5, k = 7$

b) $i=3, j=7, k=5$

if $3 < 5$

$j < k$

$\therefore j = 5$

$i = 3, j = 5, k = 5$

c) $i=5, j=3, k=7$

Since 5 is not less than 3, we enter the else statement. Since 3 is not greater than 7, we enter the nested else. Hence $i = k$, so $i = 7$

$i = 7, j = 3, k = 7$

d) $i=5, j=7, k=3$

First if statement is true since $5 < 7$.

Second if statement is not true since

$j > k$ ($7 > 3$), so we enter the else.

Hence, $j = k$ $j = 3$

$i = 5, j = 3, k = 3$

2) i is 7, j is 3, k is 5

Since $i \neq j$,
we go into the else statement

Since $j \neq k$
we go into the nested else
hence $i = 5$

$i = 5, j = 3, k = 5$

3) $i = 7, j = 5, k = 3$

Since $i \neq j$,
we go into the else statement

Since $j > k$,
hence, $j = 7$

$i = 7, j = 7, k = 3$