

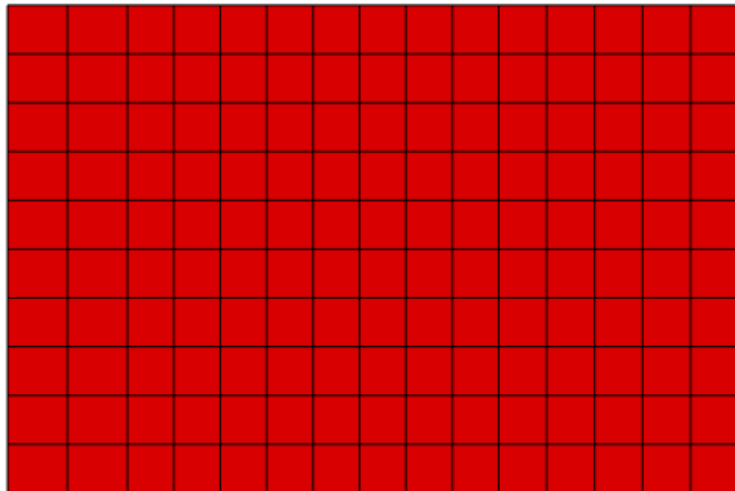
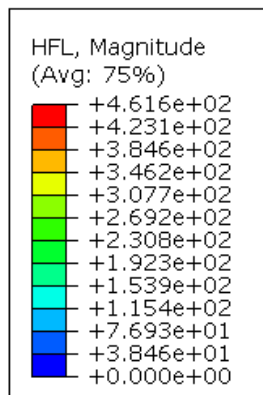
## Answer to Quiz 3

Multiple choice answers:

- 1) B
- 2) A
- 3) A
- 4) B
- 5) C

### Lab3b

3b -1

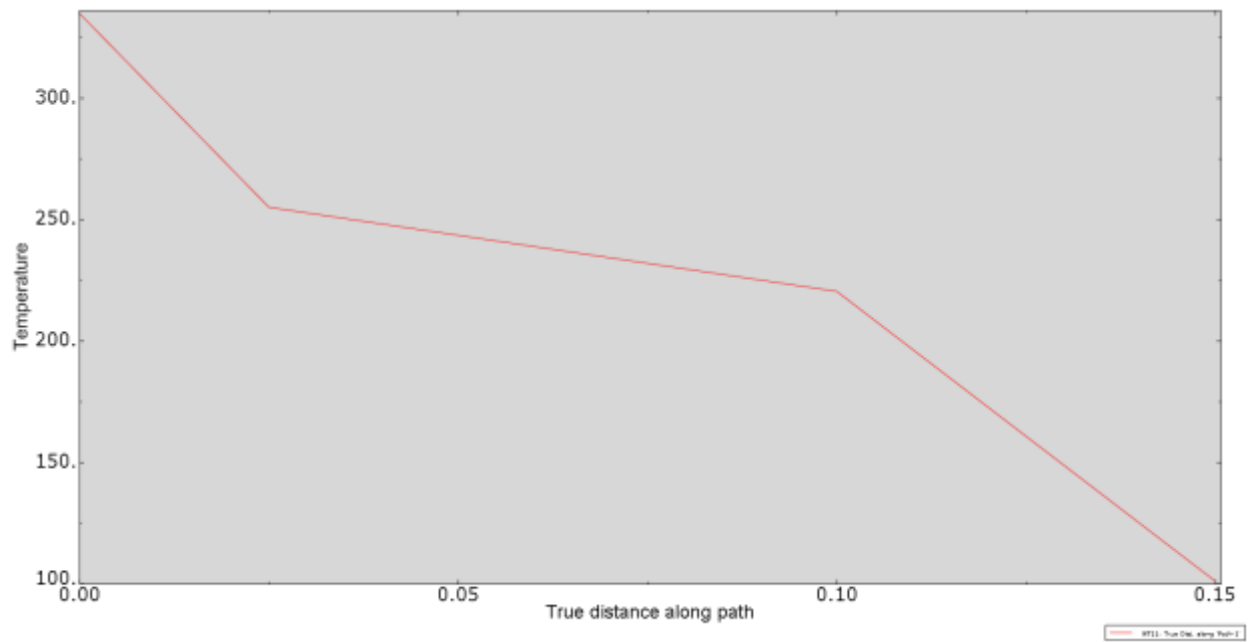


$$R_{total} = \frac{1}{h} + \frac{L_1}{k_1} + \frac{L_2}{k_2} + \frac{L_3}{k_3} + \frac{1}{h} = \frac{1}{10} + \frac{2.5e-2}{0.11} + \frac{7.5e-2}{0.76} + \frac{5.0e-2}{0.147} + \frac{1}{10}$$

$$= 0.666$$

$$q'' = \frac{T_1 - T_2}{R_{total}} = \frac{370 - 66}{0.666} = 456.46 \text{ W/m}^2$$

3b-2



Lab3c

3c-1

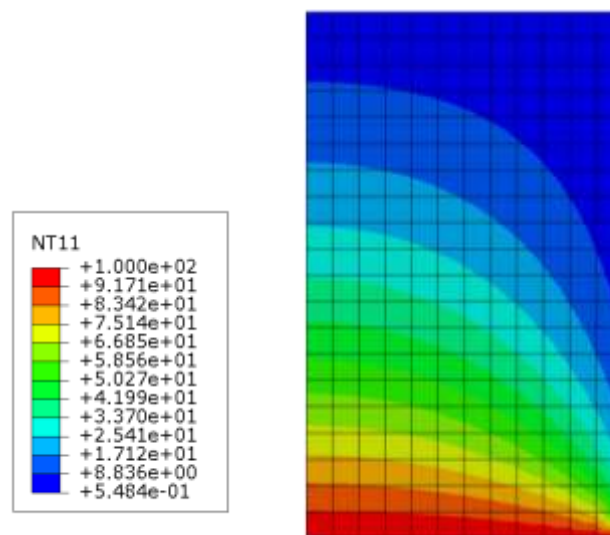


Figure 3c-4. Transient temperature distribution

3c-2

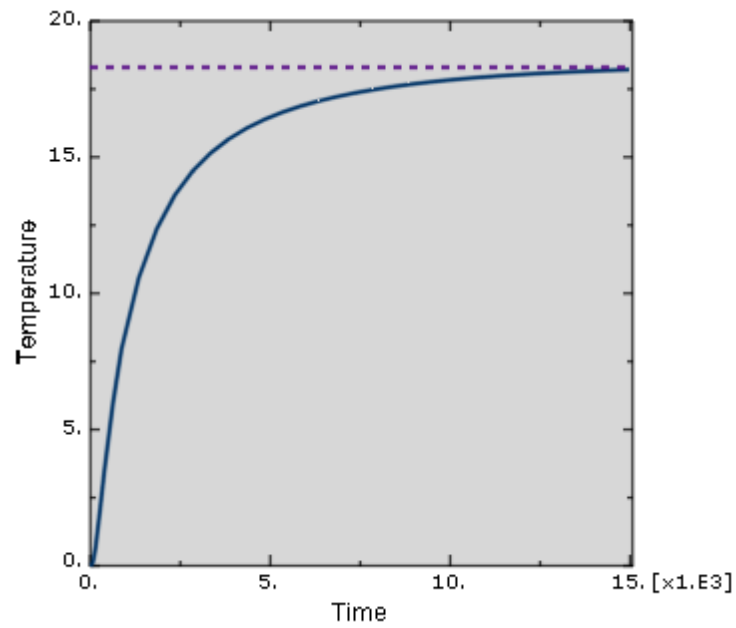
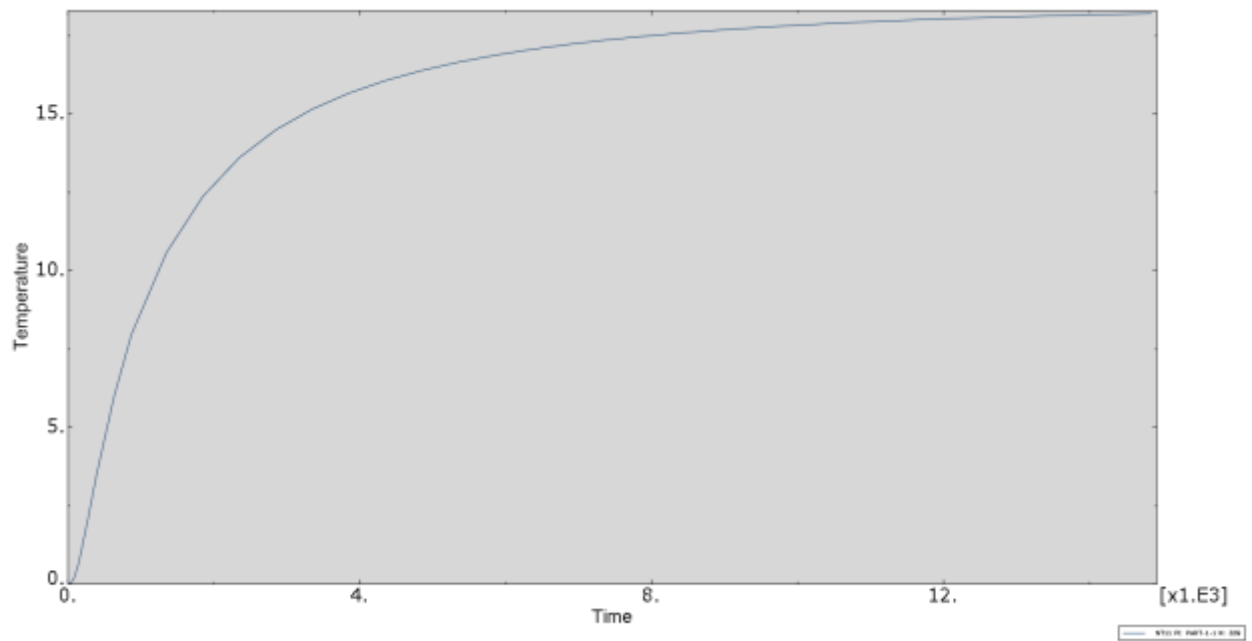


Figure 3c-5. Temperature history; the dashed line represents the steady-state solution obtained earlier.



## Lab3d

