Quiz: In the cooling example the DE was:

$$\dot{x}(t) = k(T_{\text{ext}}(t) - x(t)).$$

What does it mean for k to be large?

Think about your answer and then look at the choices.

Choices:

1. good insulation
2. bad insulation
3. don't know

Pick what you think is the correct choice and then look at the answer.

Answer:
When the insulation is good, k is small; when the insulation is bad k is large. When the insulation is perfect k is zero. k is a *coupling constant*; when it is zero, the temperature inside the cooler is decoupled from the temperature outside. In the construction industry a number like k is pasted on windows; it's called the U-value of the window.