

# AP CALCULUS AB

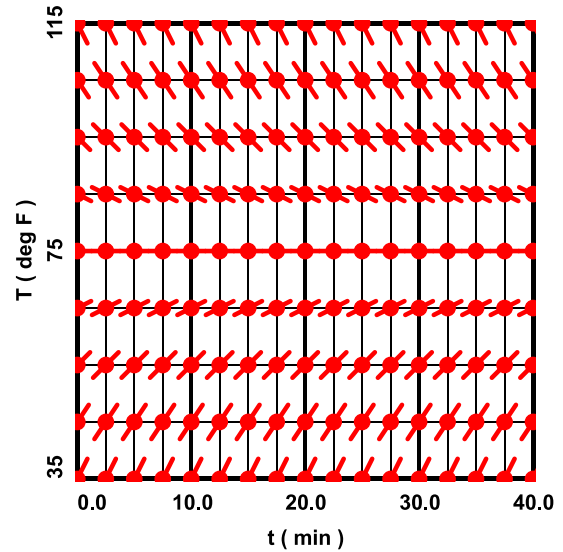
- 1) A metal block is taken out of a freezer at 15 °F and is put in a 70 °F room. After five minutes the temperature of the block is 40 °F. How long after the block is taken out of the freezer will its temperature be 65 °F ?

# NEWTON'S LAW OF COOLING

- 2) A cup of water is taken out of a refrigerator at 35 °F and is put into a 75 °F room. The slope field for this situation is

$$\frac{dT}{dt} = -\frac{1}{10}(T - 75^\circ),$$

which slope field is graphed on the grid.



On the grid, graph  $T = T(t)$  of the water.