Uniform and Accelerated Motion

<u>Data:</u>

Part 1: Uniform Motion

| Time (s) | Distance (cm) | | |
|----------|---------------|--|--|
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Include a file called *uniform motion.cmbl* showing a graph of distance as a function of time.

Equation of motion, d(t), assuming $d = d_0 + vt$

Part 2: Accelerated Motion

| Distance (cm) | Time (s) | Distance (cm) | Time (s) | Speed (m/s) |
|---------------|----------|------------------|------------------|------------------|
| on ramp | on ramp | on level surface | on level surface | on level surface |
| | | | | |
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Include a file called *acceleration.cmbl* showing graphs of velocity and distance as functions of time.

Equation of motion, v(t), assuming $v = v_0 + at$

Equation of motion, d(t), assuming $d = d_0 + v_0t + \frac{1}{2}at^2$

Value of the constant acceleration from the second plot: