

- 3. What is the interpretation of the slope of each line (Hint: this is different from it's name)?
- 4. What is the interpretation of the intercept of each line (the place where it crosses the vertical axis)?

## II. Box of toys

Starting at t = 0, a child pushes horizontally on a box, making it slide across the floor. Friction exerted by the floor on the box opposes its motion with a force of 100 newtons. The child pushes with a force that changes, as this table shows.

time interval	$\mathbf{F}_{ ext{child on box}}$
0 to 2 sec.	120 N
2 sec. to 4 sec.	100 N
4 sec. to 6 sec.	90 N

On the axes to the right, sketch the box's position, velocity, and acceleration vs. time.

