

W1L5 - APPLICATIONS OF SLOPE FIELDS

$$\frac{dv}{dt} = g - kv$$

$$\frac{dv}{dt} = \text{Acceleration}$$

$g = \text{gravity}$

$k = \text{constant of proportionality for air resistance.}$

EX

$$\frac{dv}{dt} = 32 - 1.6v$$

$m = 32 - 1.6v$ ← " v " is already a function of time

		" v "								
		0	5	10	15	20	25	30	35	40
" t "	0	32	24	16	8	0	-8	-16	-24	-32
	1	32	24	16	8	0	-8	-16	-24	-32
	2	32	24	16	8	0	-8	-16	-24	-32
	3	32	24	16	8	0	-8	-16	-24	-32
	4	32	24	16	8	0	-8	-16	-24	-32
	5	32	24	16	8	0	-8	-16	-24	-32
	6	32	24	16	8	0	-8	-16	-24	-32

