

5(a)	$\frac{1}{2}mu^2 = 16$
	$mu = 4$
	$u = 8, m = 0.5$
5(b)	$0.5 \times v = 0.5w + 1.25 \times 2w \quad [v = 6w]$
	$\frac{1}{2} \times 0.5 \times v^2 - \left(\frac{1}{2} \times 0.5 \times w^2 + \frac{1}{2} \times 1.25 \times (2w)^2 \right) = \pm 25$
	$9w^2 - \frac{1}{4}w^2 - 2.5w^2 - 25 = 0 \quad \left[\frac{25}{4}w^2 = 25 \right]$
	$w = 2, v = 12$