

參考答案

單一選擇題

ABADC DCBAD EBBED

多重選擇題

CE BE AD CD

計算題

1.

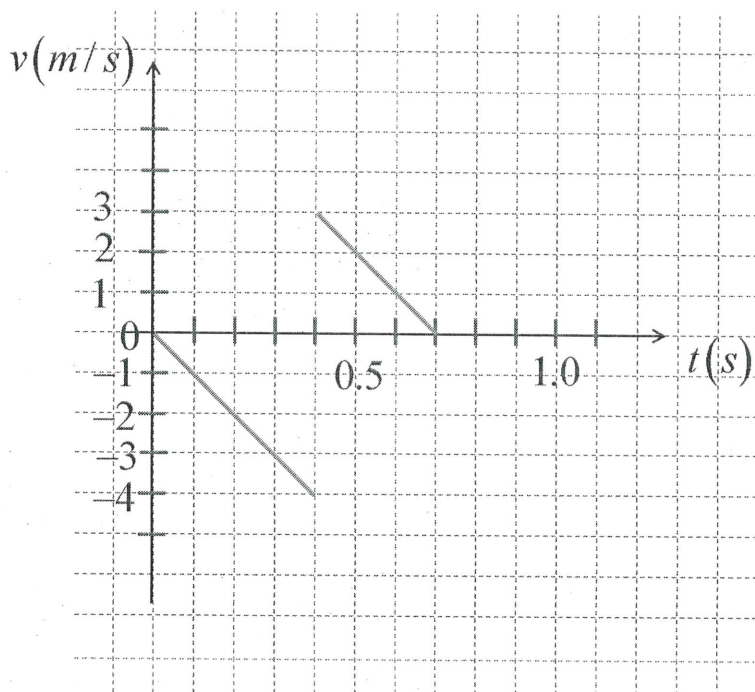
(1) 令向上為正

小彈珠落地前瞬間速度  $v_1 = -\sqrt{2 \times 10 \times 0.8} = -4 \text{ (m/s)}$  (1 分)

小彈珠反彈離地前瞬間速度  $v_2 = \sqrt{2 \times 10 \times 0.45} = 3 \text{ (m/s)}$  (1 分)

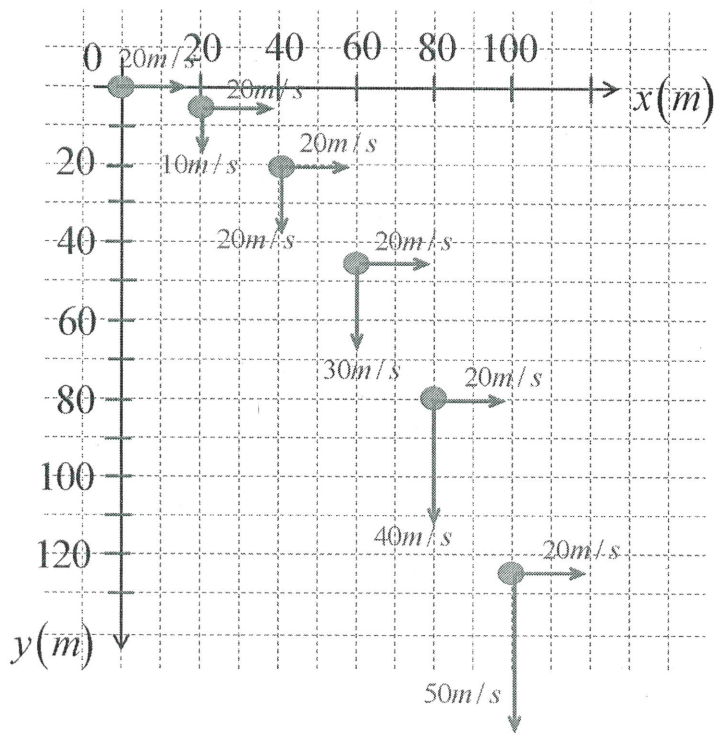
$a = \frac{3 - (-4)}{0.05} = 140 \text{ (m/s}^2\text{) 向上}$  (3 分)

(2)

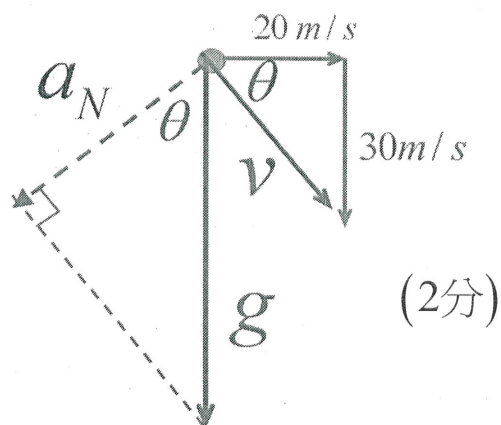


2.

(1)



(2)



(2分)

$$\tan \theta = \frac{30}{20} = \frac{3}{2} \rightarrow \cos \theta = \frac{2}{\sqrt{13}} \quad (3\text{分})$$

$$a_N = g \cos \theta = 10 \times \frac{2}{\sqrt{13}} = \frac{20}{\sqrt{13}} \text{ (m/s}^2\text{)}$$