$\qquad$ \#: $\qquad$
When evaluating problems 1-3, please represent the motion that would result from the rail configuration indicated by means of $a$ :
A) qualitative graphical representation of $\mathbf{x}$ vs. $\mathbf{t}$
B) qualitative graphical representation of $\mathbf{v}$ vs. $\mathbf{t}$
C) qualitative graphical representation of a vs. $\mathbf{t}$
D) qualitative motion map
E) general mathematical expression of the relationship between $\mathbf{x}$ and $\mathbf{t}$
F) general mathematical expression of the relationship between $\mathbf{v}$ and $\mathbf{t}$
G) general mathematical expression of the relationship between $\mathbf{a}$ and $\mathbf{t}$
H) make a force diagram for each part of the balls motion.
1)



D) |  |  |  |
| :--- | :--- | :--- |
|  |  |  |
| 0 | 25 |  |
| 50 |  |  |

E) $\qquad$
F) $\qquad$
G)
2)

3)


When considering problems $4-5$, assume that the ball does not experience any change in velocity while it is on a horizontal portion of the rail.

Please represent the motion that would result from the rail configuration indicated by means of a:
A) qualitative graphical representation of $\mathbf{x}$ vs. $\mathbf{t}$ E) make a force diagram for each part of the
B) qualitative graphical representation of $\mathbf{v}$ vs. $\mathbf{t}$ balls motion.
C) qualitative graphical representation of $\mathbf{a}$ vs. $\mathbf{t}$
D) qualitative motion map
4)

D)

5)

(1)


