A company manufactures two products, C and D , for which the following information is available:

|  | Product C | Product D | Total |
| :--- | :--- | :--- | :--- |
| Budgeted production (units) | 1,000 | 4,000 | 5,000 |
| Labour hours per unit/in total | 8 | 10 | 48,000 |
| Number of production runs required | 13 | 15 | 28 |
| Number of inspections during production | 5 | 3 | 8 |
| Total production set up costs | $\$ 140,000$ |  |  |
| Total inspection costs | $\$ 80,000$ |  |  |
| Other overhead costs | $\$ 96,000$ |  |  |

Other overhead costs are absorbed on a labour hour basis.

Using activity-based costing, what is the budgeted overhead cost per unit of Product D?

A $\quad \$ 43.84$

B $\quad \$ 46.25$

C $\quad \$ 131.00$
D $\quad \$ 140.64$

