A supplier offers the following discount structure on purchases of any single item:

1 < Q < 1000 unit => $5.00

1000 <= Q < 2000 units => $4.90

2000 <= Q units => $4.75

The discounts apply to all units. For each of the following items treated separately, what is the appropriate order quantity to use, assuming a common value of r = 0.3 (Holding cost is 30 percent of the unit cost)?

|  |  |  |
| --- | --- | --- |
| Item | D (units/year) | Ordering cost ($) |
| 1 | 10,000 | 25 |
| 2 | 1,000 | 25 |
| 3 | 4,000 | 25 |
| 4 | 130,000 | 25 |