# Question 1 of 1

Metro Co. began a software development project during Year 8 and capitalized $600,000 of software costs. Metro began to market the product in Year 9, achieving sales of $2,000,000. Future sales are estimated to be $4,500,000.

Total product sales life is estimated to be four years at the end of Year 9. Sales in Year 10 totaled $1,200,000, and Metro increased the product's total sales life to five years. In Year 10, future sales are now estimated to be $3,800,000.

Record amortization of capitalized software development costs for Year 9 and Year 10. Using the answer choices provided, select the account to be debited in the first column, the account to be credited in the second column, and the amount to be recorded in the third column. Round all amounts to the nearest whole dollar, and round all percentages to two decimal places (eg, 0.56).

| Year | Account debited | Account credited | Amount recorded |
|---|---|---|---|
| 9 | | | |
| 10 | | | |

**Available Options for 'Account Debited' and 'Account Credited':**

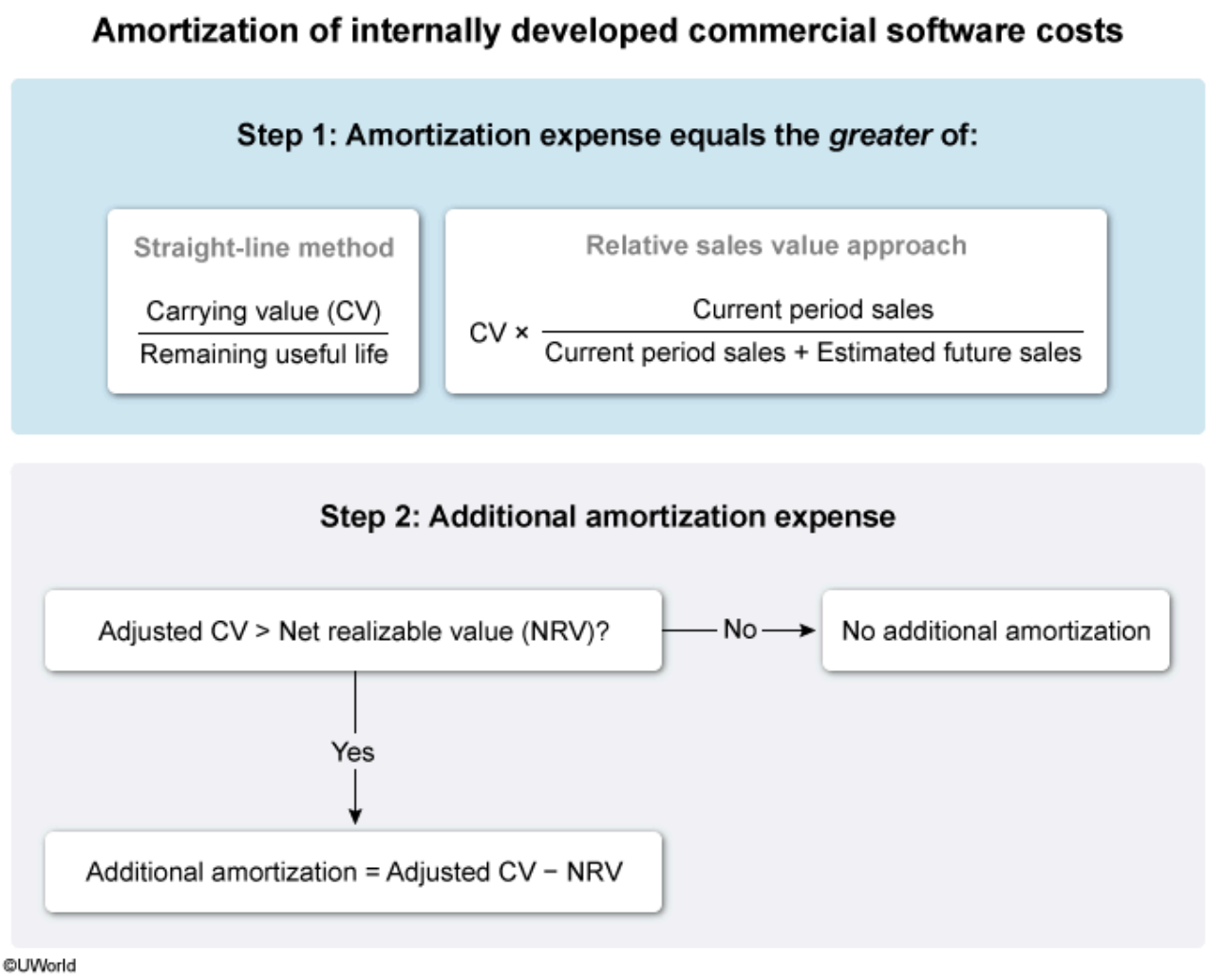
1. Amortization of capitalized software development
2. Capitalized software development costs
3. Research & development expense

**Available Options for 'Amount Recorded' :**

1. $99,360
2. $103,500
3. $150,000
4. $186,000
5. $600,000

## Explanation

### Background information




Costs incurred developing **commercial software** (ie, software not exclusively for internal use) are accounted for based on the program's development timeline and technological feasibility. Costs incurred *after* technological feasibility is established but *before* sales begin are **capitalized and amortized**.

Amortization of internally developed commercial software is calculated using a two-step process. This process is designed to reflect the software's pattern of generating benefits and to match expenses:

- **Step 1:** Amortization is calculated separately using the straight-line method and the relative sales value (RSV) method. The larger (ie, more conservative) amount is recorded as amortization.

- **Step 2:** The software's new carrying value (CV) is adjusted by subtracting amortization from the original CV. This amount is then compared to the software's net realizable value (NRV). If the adjusted CV exceeds the NRV, the excess is included as amortization expense.

The RSV method is based on the current year's revenue compared to the total estimated revenue. For example, if total revenue is expected to be $1,000 and Year 1 revenue is $600 while Year 2 revenue is $400, then Year 1 will amortize 60% of the capitalized costs and Year 2 will amortize the remaining 40% of capitalized costs. If estimated sales revenue changes year to year, the *current year's* amortization will use the *most recent information*.

### Completed Table & Year 9 Explanation

| Year | Account debited | Account credited | Amount |
|---|---|---|---|
| 9 | Amortization of capitalized software development | Capitalized software development costs | **$186,000** |
| 10 | Amortization of capitalized software development | Capitalized software development costs | **$103,500** |

For Year 9, capitalized costs of $600,000 have an estimated life of 4 years, and, therefore, amortization expense will be allocated over that period of time. Straight-line amortization is **$150,000** ($600,000 / 4), while RSV amortization is **$186,000** (rounded), using the estimates available for Year 9. The greater amount of **$186,000** will be recognized.

| | | |
|---|---|---|
| Total capitalized cost | | $600,000 |
| Year 9 revenue percentage | ($2,000,000 / ($2,000,000 + $4,500,000)) | 31% (rounded) |
| Year 9 revenue amortization | | $186,000 |

### Year 10 Explanation

Although Metro increased the product's total sales life to 5 years, 1 year has already passed, so the remaining estimated life is **4 years**. Straight-line amortization expense is **$103,500** [($600,000 − $186,000) / 4].

For RSV amortization, the *remaining carrying value* of the capitalized software (as of the beginning of the year) is multiplied by the current year's percentage of revenue to total

estimated revenue. For Year 10, the current year's revenue was $1,200,000, while estimated future revenue is $3,800,000.

RSV amortization is **$99,360**, as calculated below. The greater amount of **$103,500** is recognized.

| | | |
|---|---|---|
| Remaining book value | $600,000 − $186,000 | $414,000 |
| Year 10 revenue percentage | [$1,200,000 / ($1,200,000 + $3,800,000)] | 24% |
| Year 10 revenue amortization | | $99,360 |