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Assignment04 Question 3
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A.)
```
main()
|
├── int x = 2
|
├── call f(x)
|    └── f(int y = 2)
|        ├── int x = y + 1 → x = 3
|        ├── for loop (i = 0 to 2)
|        |    ├── int i (loop variable)
|        |    └── int temp = i*2 + x
|        |        └── temp values: 0*2+3, 1*2+3, 2*2+3 → 3, 5, 7
|        └── prints: i, temp, x
|
└── std::cout << x → prints 2 (main's x)
```

B.)
```
main()
|
├── int a = 5
├── int& ref_To_An_A = a
|
├── inner block
|    └── int a = 10 (shadows outer a)
|    └── std::cout << ref_To_An_A → prints 5
|
└── return
```

C.)
```
main()
|
├── int* p = new int(42) → heap: [42]
|
├── inner block
|    └── int* q = p
|    └── std::cout << *q → prints 42
|
└── delete p → frees heap memory
```

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D.)
main()
```
│
├── int* p = new int(42) → heap: [42]
│
├── inner block
│    └── int* q = p
│    └── std::cout << *q → prints 42
│
└── delete p → frees heap memory
```