

1. Which of the following is equivalent to

$$\begin{pmatrix} 3 \\ 0 \end{pmatrix} + \begin{pmatrix} 3 \\ 1 \end{pmatrix} + \begin{pmatrix} 3 \\ 2 \end{pmatrix} + \begin{pmatrix} 3 \\ 3 \end{pmatrix}?$$

the sum

(3 points)

A. 3^2

✓ B. 2^3

C. 3^4

D. 2^4

2. How many times would the function `fxn()` function be called in the code below?

```
for (i=0; i<10; i++) {  
    for (j=0; j<=i; j++) {  
        for (k=0; k<=j; k++) {  
            fxn(i, j, k);  
        }  
    }  
}
```

(3 points)

A. $\begin{pmatrix} 11 \\ 3 \end{pmatrix}$

B. $\begin{pmatrix} 9 \\ 3 \end{pmatrix}$

✓ C. $\begin{pmatrix} 12 \\ 3 \end{pmatrix}$

D. $\begin{pmatrix} 10 \\ 3 \end{pmatrix}$

3. How many times would the function `fxn()` function be called in the code below?

```
for (i=0; i<10; i++) {  
    for (j=0; j<10; j++) {  
        for (k=0; k<10; k++) {  
            fxn(i, j, k);  
        }  
    }  
}
```

(3 points)

A. $\begin{pmatrix} 10 \\ 3 \end{pmatrix}$

B. $\begin{pmatrix} 12 \\ 3 \end{pmatrix}$

✓ C. 1000

D. 999