Determine if the events are independent.

1. Events $A$ and $B$. $P(A)=0.2 \quad P(B)=0.4 \quad P(A$ and $B)=0.6$
2. Events $C$ and $D . P(C)=5 / 8 \quad P(D)=3 / 8 \quad P(C$ and $D)=15 / 64$
3. Events: Studying and Scoring 90 or higher.

|  | Score $\geq \mathbf{9 0}$ | Score $<\mathbf{9 0}$ |
| :--- | :---: | :---: |
| Studied | 12 | 3 |
| Did Not Study | 1 | 14 |

4. Events: Being in the $12^{\text {th }}$ grade and Doing Community Service

|  | Does Community <br> Service (C) | No Community <br> Service (N) | Total |
| :---: | :---: | :---: | :---: |
| 11th Grade (E) | 24 | 12 | 36 |
| 12th Grade (T) | 16 | 8 | 24 |
| Total | 40 | 20 | 60 |

5. Events: Being in the $10^{\text {th }}$ grade and Preferring Dogs

|  | Dogs | Cats | Total |
| :--- | :--- | :--- | :--- |
| 9th Grade | 20 | 5 | 25 |
| 10th Grade | 16 | 4 | 20 |
| 11th Grade | 22 | 6 | 28 |
| 12th Grade | 30 | 7 | 37 |
| Total | 88 | 22 | 110 |

6. Events: Being a Boy and Being a Stage Crew Member

|  | Performer | Stage Crew |
| :---: | :---: | :---: |
| Boys | 14 | 18 |
| Girls | 21 | 7 |

