Answers to the Multiple Choice Questions

| 1 | $a$ |
| :--- | :--- |
| 2 | $a$ |
| 3 | $b$ |
| 4 | $b$ |
| 5 | $b$ |
| 6 | $c$ |
| 7 | $a$ |
| 8 | $b$ |
| 9 | $d$ |
| 10 | $c$ |
| 11 | $c$ |
| 12 | $c$ |
| 13 | $d$ |
| 14 | $a$ |
| 15 | $d$ |



Actions that do not cause actual state transitions would be represented by self-loops.

(1) (2) (2) (3) (2) (3)

(b) (3) (3)



Wheel graphs never have Euler paths or Euler cycles because every vertex on the circumference always has a degree of three and since there are always at least three vertices on the circumference the number of odd degree vertices is always greater than two.


| 3 | 1 | 5 |
| :---: | :---: | :---: |
| 1 | 3 | 10 |
| 4 | 5 | 1 |
| 1 | 9 | 9 |
| 4 | 4 | 4 |
| 1 | 8 | 8 |
| 4 | 10 | 4 |
| 10 | 8 | 2 |
| 7 | 9 | 10 |
| 10 | 5 | 2 |
| 3 | =AVERAGE(A1:C1) |  |
| 10 | =MAX(A1:C6) |  |
| 1 | =OFFSET(B6,-3,1) |  |
| $\begin{array}{r} 11 \\ \text { (JT assuming } \\ \text { A11 }- \text { A12 } \\ \text { empty } \mid \text { get } 10 \text { ) } \\ \hline \end{array}$ | $=C O U N T A(A 1: A 12)$ |  |
| 25 | =SUM(OFFSET(A8,-4,2,4,1)) |  |


|  |  |  |  |  | q |
| :---: | :---: | :---: | :---: | :---: | :---: |
| F | F | F | T | T | T |
| F | F | T | T | T | T |
| F | T | F | T | F | F |
| F | T | T | T | T | T |
| T | F | F | F | T | F |
| T | F | T | F | T | F |
| T | T | F | T | F | F |
| T | T | T | T | T | T |

This is a contingency.

