6.5a. A. 15 – 2 – 4 – 1 - 1 – 1 = 6

B. 6 – 1 – 1 – 1 = 3

C. 9 – 2 – 1 – 1 = 5

D. 10 – 1 – 1 – 2 - 1 – 1 = 4

b.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Process | A | B | C | D |
| P0 | 9 – 2 = 7 | 5 – 0 = 5 | 5 – 2 = 3 | 5 – 1 = 4 |
| P1 | 2 – 0 = 2 | 2 – 1 = 1 | 3 – 1 = 2 | 3 – 1 = 2 |
| P2 | 7 – 4 = 3 | 5 – 1 = 4 | 4 – 0 = 4 | 4 – 2 = 2 |
| P3 | 3 – 1 = 2 | 3 – 0 = 3 | 3 – 0 = 3 | 2 – 1 = 1 |
| P4 | 5 – 1 = 4 | 2 – 1 = 1 | 2 – 0 = 2 | 1 – 0 = 1 |
| P5 | 4 – 1 = 3 | 4 – 0 = 4 | 4 – 1 = 3 | 4 – 1 = 3 |

c.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Process Ran | A | B | C | D |
| P1 | 6 + 0 = 6 | 3 + 1 = 4 | 5 + 1 = 6 | 4 + 1 = 5 |
| P2 | 6 + 4 = 10 | 4 + 1 = 5 | 6 + 0 = 6 | 5 + 2 = 7 |
| P0 | 10 + 2 = 12 | 5 + 0 = 5 | 6 + 2 = 8 | 7 + 1 = 8 |
| P4 | 12 + 1 = 13 | 5 + 1 = 6 | 8 + 0 = 8 | 8 + 0 = 8 |
| P3 | 13 + 1 = 14 | 6 + 0 = 6 | 8 + 0 = 8 | 8 + 1 = 9 |
| P5 | 14 + 1 = 15 | 6 + 0 = 6 | 8 + 1 = 9 | 9 + 1 = 10 |

d. Yes, since the #s are lower than the amount in the example above the System is still Safe

9.2