**Homework 2 – Comp 5710**

**Haden Stuart – has0027**

1. **V(G) = 4**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Path #** | **Path** | **C1** | **C2** | **C3** |
| **1** | **1-2-3-6-9-13-15** | **F** | **F** | **F** |
| **2** | **1-2-3-4-6-9-13-15** | **T** | **F** | **F** |
| **3** | **1-2-3-4-6-7-9-13-15** | **T** | **T** | **F** |
| **4** | **1-2-3-4-6-7-9-10-15** | **T** | **T** | **T** |

**Legend:** T = true, F = false, X = irrelevant

1. **V(G) = 7**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Path #** | **Path** | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** |
| **1** | **1-2-8-12-13-17** | **F** | **X** | **X** | **F** | **X** | **F** |
| **2** | **1-2-3-4-2-8-12-13-17** | **T/F** | **F** | **X** | **F** | **X** | **F** |
| **3** | **1-2-3-4-2-8-12-13-17** | **T/F** | **T** | **F** | **F** | **X** | **F** |
| **4** | **1-2-3-4-5-2-8-12-13-17** | **T/F** | **T** | **T** | **F** | **X** | **F** |
| **5** | **1-2-3-4-5-2-8-12-13-17** | **T/F** | **T** | **T** | **T** | **F** | **F** |
| **6** | **1-2-3-4-5-2-8-9-17** | **T/F** | **T** | **T** | **T** | **T** | **X** |
| **7** | **1-2-3-4-5-2-8-12-13-14-13-17** | **T/F** | **T** | **T** | **F** | **X** | **T/F** |

**Legend:** T = true, F = false, X = irrelevant

1. **V(G) = 6**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Path #** | **Path** | **C1** | **C2** | **C3** | **C4** | **C5** |
| **1** | **1-2-14** | **F** | **X** | **X** | **X** | **X** |
| **2** | **1-2-3-4-7-2-14** | **T/F** | **F** | **X** | **F** | **X** |
| **3** | **1-2-3-4-7-2-14** | **T/F** | **T** | **F** | **F** | **X** |
| **4** | **1-2-3-4-5-7-2-14** | **T/F** | **T** | **T** | **F** | **X** |
| **5** | **1-2-3-4-5-7-8-9-7-2-14** | **T/F** | **T** | **T** | **T** | **F** |
| **6** | **1-2-3-4-5-7-8-9-10-7-2-14** | **T/F** | **T** | **T** | **T** | **T** |

**Legend:** T = true, F = false, X = irrelevant

1. **V(G) = 7**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Path #** | **Path** | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** |
| **1** | **1-2-14-15-22** | **F** | **X** | **X** | **X** | **F** | **X** |
| **2** | **1-2-3-4-22** | **T** | **F** | **X** | **X** | **X** | **X** |
| **3** | **1-2-3-4-5-9-4-22** | **T** | **T** | **F** | **X** | **X** | **X** |
| **4** | **1-2-3-4-5-9-4-22** | **T** | **T** | **T** | **F** | **X** | **X** |
| **5** | **1-2-3-4-5-6-4-22** | **T** | **T** | **T** | **T** | **X** | **X** |
| **6** | **1-2-14-15-16-17-15-22** | **F** | **X** | **X** | **X** | **T** | **F** |
| **7** | **1-2-14-15-16-17-18-17-15-22** | **F** | **X** | **X** | **X** | **T** | **T** |

**Legend:** T = true, F = false, X = irrelevant