**Algebra II Homework #1 Function Operations Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Given **and**, find each function.**

|  |  |  |
| --- | --- | --- |
| **2.** (*f* + *g*)(2) | **3.** (*f* - *g*)(-4) | **4.** (*g* - *f* )(-1) |

**Given ** and *g*(*x*) = *x* + 1, find each function.**

|  |  |  |
| --- | --- | --- |
| **5.**  | **6.**  | **7.**  |

**Given ** and *g*(*x*) = 7 - *x*, find each value.**

|  |  |  |
| --- | --- | --- |
| **8.** *f* (*g* (5)) | **9.** *g* (*f* (5)) | **10.** *f* (*g* (-2)) |

**Given**,** $g\left(x\right)=3x-1$**, and**$ h\left(x\right)=\sqrt{x-2}$**, write each composite function.**

|  |  |  |
| --- | --- | --- |
| 11.  | 12.  | 13.  |
| 14.  | 15.  | 16.  |

**Use the tables to find each value.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **17.**(*g* ◦ *f* )(4) | **18.** (*f* ◦ *g*)(3) |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **x** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| **f(x)** | **0** | **1** | **2** | **3** | **4** | **5** | **6** |

 |
| **19.** *g*(*f* (2)) | **20.** *f* (*g*(4)) |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **x** | **0** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| **g(x)** | **1** | **2** | **4** | **8** | **16** | **32** | **64** | **128** |

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