|  |  |
| --- | --- |
| **5.** | Perform the requested operation or operations.  f(x) = 2x - 9, g(x) = 4x - 4    Find (f - g)(x) |
|  | |  |  | | --- | --- | | **Answer.** | -2x - 5 | |

|  |  |
| --- | --- |
| **6.** | Compare the graph of the given quadratic function f with the graph of y = x2  f(x) = (x - 8)2 + 4 |
| **Answer.** | a translation 8 units right and 4 units up |

|  |
| --- |
| Solve the problem  Find (f  ° g)(3) when f(x) = -5x + 2 and g(x) = 8x2 + 9x + 7 |

Answer: -528

|  |  |  |  |
| --- | --- | --- | --- |
| **8.** | Compute and simplify the difference quotient   |  | | --- | | f(x + h) - f(x) | | H |   , h ≠ 0. |

Answer: 4

|  |  |  |  |
| --- | --- | --- | --- |
| **10.** | Consider the function h as defined. Find functions f and g so that (f ° g)(x) = h(x).  h(x) =   |  |  | | --- | --- | | **answer.** | f(x) = x + 4, g(x) = | |

|  |  |
| --- | --- |
| **11.** | Solve the problem.  Find (f °g)(-6) when f(x) = 4x + 4 and g(x) = 6x2 - 3x - 6. |

Answer: 916

|  |  |
| --- | --- |
| **13.** | Determine whether or not the function is one-to-one.  http://angellms.gcu.edu/AngelUploads/Content/47518/_assoc/E12CA94A20AD4040B8242A227BA7CCA2/image%2029%20module%203%20q27.JPG?7611 |
| **15.** | Perform the requested operation or operations.  f(x) = 9x - 4, g(x) = 6x - 6  Find (f - g)(x). |

Answer: 3x + 2

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **16.** | Graph the basic function using a solid line and the transformed function using a dotted line.  y = -3 |x|  http://angellms.gcu.edu/AngelUploads/Content/47518/_assoc/E12CA94A20AD4040B8242A227BA7CCA2/image%2015%20module%203%20q17.JPG?6119     |  |  | | --- | --- | | **20.** | Solve the problem  Select the equation that describes the graph shown  http://angellms.gcu.edu/AngelUploads/Content/47518/_assoc/E12CA94A20AD4040B8242A227BA7CCA2/image%202%20module%203%20q8.JPG?2522 | |  | |  |  | | --- | --- | | **A.** | y = (x + 2)2- 4 | | **B.** | y = (x + 4)2 + 2 | | **C.** | y = (x - 4)2 + 2 | | **D.** | y = x2 - 4 | | |