Question 6 0/1 pt 100 99 Details

Given $f(x) = x + 9$ and $g(x) = \sqrt{x + 10}$, determine the following. Write each answer using interval notation.

Domain of $f(g(x))$:

Domain of $g(f(x))$:

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$$f(g(x)) = \sqrt{x + 10} + 9 \; Domain \; [-10, \infty)$$

$$g(f(x)) = \sqrt{x + 9 + 10}$$

$$g(f(x)) = \sqrt{x + 19} \; Doman: \; [-19, \infty)$$

Question 8 0/1 pt 100 99 Details

The number of bacteria in a refrigerated food product is given by $N(T) = 21T^2 - 99T + 70$, $4 < T < 34$ where T is the temperature of the food.
When the food is removed from the refrigerator, the temperature is given by $T(t) = 7t + 1.1$, where t is the time in hours.

Find the composite function $N(T(t))$:

$N(T(t)) =$ $21(7t + 1.1)^2 - 99(7t + 1.1) + 70$

Find the number of bacteria after 1.8 hours. Give your answer accurate to the nearest whole value.

2655 bacteria

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$x + 9$

Question 9

0/1 pt 100 99 Details

The function $h(x) = (x + 9)^5$ can be expressed in the form $f(g(x))$ where $f(x) = x^5$, and $g(x)$ is defined below:

$g(x) =$ [ ] ,

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