Functions Exercises

Write each of the following statements in normal English.
Example: The statement f(3) = 7 should be written as:
The unique range element associated with the domain element 3 by the function f is 7.

1) f(2) = 8

2) f(5) = (5)(67)

3) $f(\pi) = \sqrt{23}$

4) f(x) = 3x + 1

5) $f(x) = 2^x + 5^x$

6) $f(x) = \pi^x$

7) $f(x) = x^{\pi}$

8) $f \circ g(x) = f(g(x))$

9) $f \circ g(2) = 5$

10) f(7) > 48

11) $f(2) < 5^2$

12) f(3) < f(x)

Write each of the following statements using normal mathematical notation.
Example: The statement: The range element associated with the domain element 4 by the function f is 7 would be written as: f(4) = 7.

1. The range element associated with 8 by the function f is 11.
2. 45 is the range element associated with the domain element 9 by the function f.
3. The rule for the function f is: The range element associated with a domain element is that domain element raised to the 11^{th} power.
4. The rule for the function f is: The range element associated with the domain element 14 is less than the range element associated with the domain element 87 by the same function f.
5. Two functions f and g have the same domains and for each domain element, the range element associated with it by the function g is greater than the range element associated with it by the function f.
6. The point (3,5) is on the graph of the function f.
7. The point $(7, \pi)$ is on the graph of the function f.
8. 86 is a zero of the function f.
9. The function f is a linear function.
10. The function f is a quadratic function.