(1) The table gives the values of the functions *f* and *g*. Use the table to evaluate the expressions below. If there is not enough information given, state the information you would need to evaluate the expression.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *x* | 0 | 1 | 2 | 3 | 4 | 5 |
|  | 3 | 5 | 0 | 2 | 1 | 4 |
|  | 2 | 7 | 1 | 5 | 3 | 0 |

 a.] $g(f\left(3\right))$

 b.] $f\left(g\left(5\right)\right)$

 c.] $f\left(g\left(1\right)\right)$

(2) Given $\left(x\right)=\left(4+\sqrt[3]{x}\right)^{9}$, find functions $f$, $g$, and $h$ such that $r\left(x\right)=\left(f∘g∘h\right)\left(x\right)$.

(3) Solve and show your work.

 a.] $2.6\left(1.04\right)^{t}=4.1$

 b.] $4\left(1.171\right)^{x}=7\left(1.088\right)^{x}$

c.] $log\_{2}3+log\_{2}x=log\_{2}5+log\_{2}\left(x-2\right)$

(4) Consider the circle $x^{2}+y^{2}-6x-8y=0$.

 Find the point of intersection of the two tangent lines to the circle which pass through the points (0,0) and (6,0), respectively.