

PENANG SANGAM HIGH SCHOOL
YEAR 13 MATHEMATICS
WEEK 3
Dates: (14/06/21) to (18/06/21)

WORKSHEET 3

1. The functions f and g are defined as $f(x) = x + 3$ and $g(x) = \frac{2}{x+1}$

a) Find $(f + g)(x)$

b) Find the domain of $g(x)$.

c) Find the domain of $(f + g)(x)$.

d). Find $f \circ g(x)$

2. Functions f and g are defined as $f: x \rightarrow \sqrt{x - 4}$ and $g: x \rightarrow x^2 + 1$. Find:

a). the domain of $f(x)$ and range of $g(x)$

b). $g \circ f(x)$

c). domain and range of $g \circ f(x)$

d) $f^{-1}(1)$