Date :

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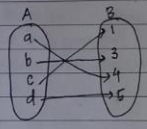
1) • Relasi dan fungsi
• Sifat dan jenis fungsi
• Fungsi komposisi

2) a. Benar d. Salah
b. Salah e. Benar
c. Salah f. Benar

3) 

$\{(b,3),(a,4),(c,1),(d,5)\}$

4) $(f \circ g)(x) = 3x - 7$
$f(x) = 3x + 8$
$g(x) = ?$

$f(g(x)) = 3x - 7$
$3(g(x)+8) = 3x - 7$
$3(g(x)) = 3x - 15$
$g(x) = \frac{3x-15}{3} = x - 5$
$g(2) = 2 - 5 = -3$

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5) Dik $(f \circ g)(x) = x^2 - 2x + 3$
$g(x) = x - 1$
$f(5) = ?$

Jawab :
$(f \circ g)(x) = f(g(x))$
$x^2 - 2x + 3 = f(x-1)$
misal $\rightarrow x - 1 = p, \rightarrow x = p + 1$
$f(x-1) = x^2 + 2x + 3$
$f(p) = (p+1)^2 - 2(p+1) + 3$
$f(p) = p^2 + 2p + 1 - 2p - 2 + 3$
$f(p) = p^2 + 1 - 2 + 3 = p^2 + 2$
$f(p) = p^2 + 2$
$f(5) = 5^2 + 2$
$f(5) = 25 + 2 = 27$

6) Dik $f(x) = 2x - 3$
$g(x) = x^2 + 5$
$(g \circ f)(2) = ?$
Jawab : $g(f(x)) = (g \circ f)(x)$
$= g(2x-3)^2 + 5$
$(g \circ f)(x) = 4x^2 - 12x + 9 + 5$
$(g \circ f)(2) = 4(2)^2 - 12(2) + 14$
$= 16 - 24 + 14$
$(g \circ f)(2) = 6$

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