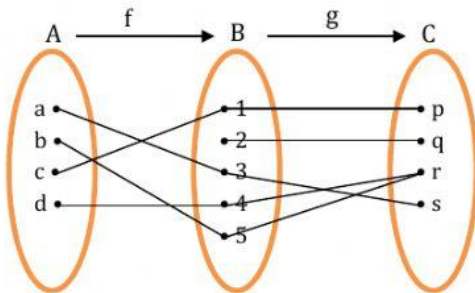


LATIHAN MATEMATIKA  
FUNGSI KOMPOSISI ( Pertemuan 2)

Lengkapilah kotak kosong dibawah ini dengan benar.

1. Fungsi  $f: A \rightarrow B$  dan fungsi  $g: B \rightarrow C$  ditunjukkan oleh gambar di bawah ini!



Tentukanlah :

a)  $(g \circ f)(a) = g(f(a)) = g(\text{[ ]}) = \text{[ ]}$

b)  $(g \circ f)(b) = g(f(b)) = g(\text{[ ]}) = \text{[ ]}$

c)  $(g \circ f)(c) = g(f(c)) = g(\text{[ ]}) = \text{[ ]}$

d)  $(g \circ f)(d) = g(f(d)) = g(\text{[ ]}) = \text{[ ]}$

2. Diketahui himpunan  $A = \{a,b,c,d,e\}$ . Fungsi  $f$  dan  $g$  pada  $A$  didefinisikan sebagai berikut

$$f = \{(a,d), (b,c), (c,a), (d,e), (e,b)\}$$

$$g = \{(a,b), (b,d), (c,e), (d,a), (e,c)\}$$

Tentukanlah fungsi komposisi:

a)  $(g \circ f)(a) = g(f(a)) = g(\text{[ ]}) = \text{[ ]}$

b)  $(g \circ f)(d) = g(f(d)) = g(\text{[ ]}) = \text{[ ]}$

c)  $(f \circ g)(a) = f(g(b)) = f(\text{[ ]}) = \text{[ ]}$

d)  $(f \circ g)(e) = f(g(e)) = f(\text{[ ]}) = \text{[ ]}$

3. Diketahui fungsi  $f: \mathbb{R} \rightarrow \mathbb{R}$  dan fungsi  $g: \mathbb{R} \rightarrow \mathbb{R}$  dengan  $f(x) = 3x - 2$  dan  $g(x) = x^2 - 2x + 5$ .

Tentukanlah :

a.  $(f \circ g)(x) = f(g(x))$

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

$$= 3(x^2 - \boxed{\phantom{00}} + 5) - 2$$

$$= \boxed{\phantom{00}} - \boxed{\phantom{00}} + \boxed{\phantom{00}} - 2$$

$$= \boxed{\phantom{00}} - \boxed{\phantom{00}} + \boxed{\phantom{00}}$$

b.  $(g \circ f)(3) = g(f(3))$

$$= g(3 \boxed{\phantom{00}} - 2)$$

$$= g(\boxed{\phantom{00}})$$

$$= (\boxed{\phantom{00}})^2 - 2 \boxed{\phantom{00}} + 5$$

$$= \boxed{\phantom{00}} - \boxed{\phantom{00}} + 5$$

$$= \boxed{\phantom{00}}$$

SELAMAT BEKERJA