

Find dy/dx .

1) $y = \sqrt{4 + \sin 2x}$

2) $y = \sin^4 x - \cos 10x$

3) $y = 2x\sqrt{19x - x^7}$

4) $y = \frac{2x+7}{\sqrt{7-4x}}$

Suppose that the functions f and g and their derivatives with respect to x have the following values at the given values of x .

x	$f(x)$	$g(x)$	$f'(x)$	$g'(x)$
3	1	4	8	7
4	3	3	5	-4

a) Find the derivative with respect to x of the given combination: $f(g(x))$

b) Find the value of the derivative at $x = 4$.