Name:

Given that $f(x) = 4x$ and $g(x) = 5x - 2$ and $h(x) = 2x^2$ :

a) Find an expression for $gh(x)$

b) Find the value of $gh(2)$

c) Find an expression for $fg(x)$

d) Find the value of $fg(3)$

e) Find an expression for $fh(x)$

f) Find the value of $fh(4)$

g) Find an expression for $hf(x)$

h) Find the value of $hf(3)$

i) Find an expression for $hh(x)$

j) Find the value of $hh(3)$

**Practice questions:**

Given that $f(x) = x + 2$ and $g(x) = 4 - 2x$ and $h(x) = x^2 + 5$ :

k) Find the value of $x$ when $ff(x) = 24$

l) Find the value of $x$ when $fg(x) = 2$

m) Find the value of $x$ when $gg(x) = 20$

n) Find the values of $x$ when $hf(x) = 30$

📋 **Exam question:**

Given that f$(x) = x^2 + 2x$ and g$(x) = x + 2$

Write an expression for fg$(x)$