

Composition of Three Functions

MS2

Choose the correct choice that best describes $f \circ (g \circ h)$.

1) $f(x) = x-2$; $g(x) = x^2+1$; $h(x)=x-3$.

- a) $x^2-6x+10$
- b) x^2-6x+8
- c) $-x^2-4x+2$
- d) x^2-4x+2

2) $f(x) = 2x-4$; $g(x) = x+7$; $h(x)=2x^2+3x+2$.

- a) $2x^2+6x+11$
- b) $2x^2-6x+14$
- c) $4x^2+6x+14$
- d) $2x^2+6x-14$

3) $f(x) = 3x^2-7$; $g(x) = x+8$; $h(x)=-4-x$.

- a) $-3x^2-48x-191$
- b) $3x^2+48x+41$
- c) $-5-3x^2$
- d) $3x^2-24x+41$

4) $f(x) = x-4$; $g(x) = 3x^2+5x+7$; $h(x)=5-x$.

5) $f(x) = 2x+1$; $g(x) = x$

- a) $50x^2+40x+5$
- b) $50x^2+40x+11$
- c) $x^2+11x+6$
- d) $x^2+40x+11$

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= $x-7$; $h(x)=x+5$.

7) $f(x) = x+3$; $g(x) = 5x$

- a) $5x^2-40x+29$
- b) $5x^2-14x-23$
- c) $-5x^2-14x-23$
- d) $5x^2+40x-26$

-1; $h(x)=3x^2$.

d) $4x^2+x+9$

9) $f(x) = x^2+4x+5$; $g(x) = x-8$; $h(x)=x+9$.

- a) $x^2-6x+10$
- b) x^2+6x-6
- c) x^2+6x+6
- d) $x^2+6x+10$

10) $f(x) = 2x+9$; $g(x) = x^2$; $h(x)=x+2$

- a) $2x^2+8x+8$
- b) $2x^2-8x-9$
- c) $2x^2+8x+17$
- d) $2x^2-8x-17$

Answer key

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