

# Composition of Three Functions

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

1)  $f(x) = 4x + 8; g(x) = 2x + 3; h(x) = x - 12.$       2)  $f(x) = x - 4; g(x) = 3x - 2; h(x) = 7 - x.$

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|--------------|---------------|
| a) $8x - 8$  | a) $-3x + 15$ |
| b) $8x + 7$  | b) $-3x + 21$ |
| c) $8x - 76$ | c) $-3x + 13$ |
| d) $8x + 8$  | d) $-3x - 12$ |

3)  $f(x) = 10x^2 - 5x + 1; g(x) = 2x^2 - 3x + 1; h(x) = x^2 + 2x - 1.$       4)  $f(x) = 2x^2 - 3x + 1; g(x) = x^2 + 2x - 1; h(x) = 10x^2 - 5x + 1.$

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|----|----------------|
| a) | <b>Preview</b> |
| b) |                |
| c) |                |
| d) |                |

5)  $f(x) = 2x^2 - 3x + 1; g(x) = x^2 + 2x - 1; h(x) = 10x^2 - 5x + 1.$       11)  $f(x) = 2x^2 - 3x + 1; g(x) = x^2 + 2x - 1; h(x) = 10x^2 - 5x + 1.$

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|----|---|
| a) | <b>Become a member to unlock unrestricted access to both printable and online worksheets.</b> |
| b) |   |
| c) |   |
| d) |   |

7)  $f(x) = 2x^2 - 3x + 1; g(x) = x^2 + 2x - 1; h(x) = 10x^2 - 5x + 1.$       12)  $f(x) = 2x^2 - 3x + 1; g(x) = x^2 + 2x - 1; h(x) = 10x^2 - 5x + 1.$

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|---------------|--|---|
| a)            | <a href="http://www.tutoringhour.com">www.tutoringhour.com</a> |  |
| b) $-3x + 3$  | b) $108x - 58$   |   |
| c) $-3x - 13$ | c) $108x - 31$   |   |
| d) $3x - 9$   | d) $108x + 337$  |   |

9)  $f(x) = 3 - 8x; g(x) = 2x + 1; h(x) = x - 6.$       10)  $f(x) = 11x - 2; g(x) = x - 3; h(x) = x + 5.$

- |                |               |
|----------------|---------------|
| a) $-16x + 59$ | a) $11x - 30$ |
| b) $-16x + 91$ | b) $11x$      |
| c) $-16x + 1$  | c) $11x + 20$ |
| d) $-16x - 11$ | d) $-11x - 5$ |