Algebra 2 Bellwork Friday, October 2, 2015

Use these functions: $k(m) = m^2 + 8m$ $g(w) = 6w - 5$

1. Find $k(x-6)$

2. Find $g\left(\frac{x+7}{3}\right)$

Factor each quadratic.

3. $8x^2 - 22x + 15$

4. $6c^2 - c - 15$

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ANSWERS

Use these functions: $k(m) = m^2 + 8m$ $g(w) = 6w - 5$

1. Find $k(x-6)$

$k(x-6) = (x-6)^2 + 8(x-6)$

$= x^2 - 12x + 36 + 8x - 48$

$= \boxed{x^2 - 4x - 12}$

2. Find $g\left(\frac{x+7}{3}\right)$

$g\left(\frac{x+7}{3}\right) = 6\left(\frac{x+7}{3}\right) - 5$

$= 2(x+7) - 5$

$= 2x + 14 - 5$

$= \boxed{2x + 9}$

Factor each quadratic.

3. $8x^2 - 22x + 15 = (2x-3)(4x-5)$

120

-10 -12

-22

	2x	-3
4x	$8x^2$	$-12x$
-5	$-10x$	$+15$

4. $6c^2 - c - 15 = (2c+3)(3c-5)$

-90

-10 9

-1

	2c	+3
3c	$6c^2$	$+9c$
-5	$-10c$	-15