Bellwork Algebra 2 Friday, September 6, 2019

Use these two functions: $f(x) = 5x^2 - 6x$ $g(m) = 2m - 11$

1. Find $g(8)$

2. Find $f(-3)$

3. Find $g(-5) + f(2)$

4. Find m if $g(m) = 7$

Write the explicit formula for each sequence.

5. $5, 15, 45, 135, \ldots$

6. $-7, -1, 5, 11, \ldots$

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ANSWERS

Use these two functions: $f(x) = 5x^2 - 6x$ $g(m) = 2m - 11$

1. Find $g(8)$

$g(8) = 2(8) - 11$
$= 16 - 11$

$g(8) = 5$

2. Find $f(-3)$

$f(-3) = 5(-3)^2 - 6(-3)$
$= 5(9) - 6(-3)$
$= 45 + 18$

$f(-3) = 63$

3. Find $g(-5) + f(2)$

$g(-5) = 2(-5) - 11$
$= -10 - 11$
$= -21$

$f(2) = 5(2)^2 - 6(2)$
$= 5(4) - 6(2)$
$= 20 - 12$
$= 8$

$g(-5) + f(2)$
$= -21 + 8$
$= -13$

4. Find m if $g(m) = 7$

$7 = 2m - 11$
$+11 \quad +11$

$\frac{18}{2} = \frac{2m}{2}$

$m = 9$

Write the explicit formula for each sequence.

5. $5, 15, 45, 135, \ldots$
×3 ×3 ×3

Geometric Sequence
$r = 3$

$t_n = t_1 \cdot r^{n-1}$

$t_n = 5(3)^{n-1}$

6. $-7, -1, 5, 11, \ldots$
+6 +6 +6

Arithmetic Sequence
$d = 6$

$t_n = t_1 + d(n-1)$

$t_n = -7 + 6(n-1)$