Name: _____ Period: _____ Date: _____

Arithmetic Sequences and Series Exit Quiz

Multiple choices

1. **The $16th$ term of the arithmetic sequence whose general term is $a_n = 6n - 12$ is:**

   a.) 16 **b.) 12**

   c.) 82 **d.) 84**

2. **The number of terms in the arithmetic series $6 + 1 - 4 - 9 \ldots \ldots \ldots \ldots - 239$ is:**

   a.) 50 **b.) 45**

   c.) 25 **d.) 20**

3. **How many terms of the arithmetic sequence $1, 3, 5, 7 \ldots \ldots \ldots \ldots$ will give a sum of 961?**

   a.) 30 **b.) 32**

   c.) 31 **d.) 43**

4. **A man earned $\$3.500$ the first year he worked. If he received a raise of $\$500$ at the end of each year, what was his salary during the $15th$ year?**

   a.) $\$105.000$ **b.) $\$135.500$**

   c.) $\$100.500$ **d.) $\$100.000$**

Name: _____ Period: _____ Date: _____

Arithmetic Sequences and Series Exit Quiz

5. Fill in the gaps in this arithmetic sequence: $-3, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, 21$

Name: _____ Period: _____ Date: _____

Arithmetic Sequences and Series Exit Quiz

ANSWERS

Multiple choices

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Name: _____ Period: _____ Date: _____

Arithmetic Sequences and Series Exit Quiz

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$\mathbf{5}\ \boldsymbol{means}$
$-3, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, 21$

$a_1 = -3 \qquad a_7 = 21$

$a_n = a_1 + (7-1)d$
$a_7 = a_1 + (7-1)d$
$21 = -3 + 6d$
$21 + 3 = -3 + 3 + 6d$
$24 = 6d$
$d = 4$
$a_2 = a_1 + d = -3 + 4 = 1$
$a_3 = a_2 + d = 1 + 4 = 5$
$a_4 = a_3 + d = 5 + 4 = 9$
$a_5 = a_4 + d = 9 + 4 = 13$
$a_6 = a_5 + d = 13 + 4 = 17$

$-3, 1, 5, 9, 13, 17, 36$