



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Solve each arithmetic sequence problem.

*Solve for x. Show your work.*

1.  $\square_{\{9\}}$  if  $a_1 = 10$  and  $d = 5$
2. A student saves \$100 initially, then adds \$25 each week. How much after 6 weeks?
3. Write the explicit formula for: 7, 11, 15, 19, ...
4.  $\square_{\{12\}}$  if  $a_1 = 8$  and  $d = 3$
5.  $\square_{\{15\}}$  if  $a_1 = 5$  and  $d = 4$
6. A student saves \$50 initially, then adds \$20 each week. How much after 7 weeks?
7. A student saves \$100 initially, then adds \$10 each week. How much after 7 weeks?
8. Write the explicit formula for: 3, 5, 7, 9, ...



## Solve each arithmetic sequence problem. – Answer Key

1.  $a_9$  if  $a_1 = 10$  and  $d = 5$   
**50**

2. A student saves \$100 initially, then adds \$25 each week. How much after 6 weeks?

3. Write the explicit formula for: 7, 11, 15, 19, ...

4.  $a_{12}$  if  $a_1 = 8$  and  $d = 3$   
**41**

5.  $a_{15}$  if  $a_1 = 5$  and  $d = 4$   
**61**

6. A student saves \$50 initially, then adds \$20 each week. How much after 7 weeks?

7. A student saves \$100 initially, then adds \$10 each week. How much after 7 weeks?

8. Write the explicit formula for: 3, 5, 7, 9, ...

**\$160**

$a_n = 7 + (n-1) \times 4$

**\$226**

$a_n = 3 + (n-1) \times 2$