

Practice Worksheet: Writing Explicit Formulas For Arithmetic Sequences**State the common difference. Find the next 3 terms.**

1) $-18, -26, -34, -42, \dots$

2) $22, 28, 34, 40, \dots$

3) $16, 26, 36, 46, \dots$

4) $22, 13, 4, -5, \dots$

5) $3, 33, 63, 93, \dots$

6) $5, -4, -13, -22, \dots$

Find the common difference. Write the closed explicit formula. Use your formula to find the value of the term given.

7) $26, -74, -174, -274, \dots$
Find a_{31}

8) $-12, -2, 8, 18, \dots$
Find a_{26}

9) $-8, -208, -408, -608, \dots$
Find a_{34}

10) $7, 17, 27, 37, \dots$
Find a_{29}

11) $33, 233, 433, 633, \dots$
Find a_{32}

12) $37, 7, -23, -53, \dots$
Find a_{25}

Practice Worksheet: Writing Explicit Formulas For Arithmetic Sequences**State the common difference. Find the next 3 terms.**

1) $-18, -26, -34, -42, \dots$

Common Difference: $d = -8$

Next 3 terms: $-50, -58, -66$

2) $22, 28, 34, 40, \dots$

Common Difference: $d = 6$

Next 3 terms: $46, 52, 58$

3) $16, 26, 36, 46, \dots$

Common Difference: $d = 10$

Next 3 terms: $56, 66, 76$

4) $22, 13, 4, -5, \dots$

Common Difference: $d = -9$

Next 3 terms: $-14, -23, -32$

5) $3, 33, 63, 93, \dots$

Common Difference: $d = 30$

Next 3 terms: $123, 153, 183$

6) $5, -4, -13, -22, \dots$

Common Difference: $d = -9$

Next 3 terms: $-31, -40, -49$

Find the common difference. Write the closed explicit formula. Use your formula to find the value of the term given.

7) $26, -74, -174, -274, \dots$

Find a_{31}

Common Difference: $d = -100$

$a_{31} = -2974$

Explicit: $a_n = 126 - 100n$

8) $-12, -2, 8, 18, \dots$

Find a_{26}

Common Difference: $d = 10$

$a_{26} = 238$

Explicit: $a_n = -22 + 10n$

9) $-8, -208, -408, -608, \dots$

Find a_{34}

Common Difference: $d = -200$

$a_{34} = -6608$

Explicit: $a_n = 192 - 200n$

10) $7, 17, 27, 37, \dots$

Find a_{29}

Common Difference: $d = 10$

$a_{29} = 287$

Explicit: $a_n = -3 + 10n$

11) $33, 233, 433, 633, \dots$

Find a_{32}

Common Difference: $d = 200$

$a_{32} = 6233$

Explicit: $a_n = -167 + 200n$

12) $37, 7, -23, -53, \dots$

Find a_{25}

Common Difference: $d = -30$

$a_{25} = -683$

Explicit: $a_n = 67 - 30n$