4.3.D1 ~ Terms of a Sequence

Past due on_____ Period____

Determine whether each given sequence is arithmetic, geometric, or neither.

1) 1, –5, 25, –125, 625, ...

2) –26, –30, –34, –38, –42, ...

3) 7, 9, 12, 16, 21, ...

4) 3, 15, 75, 375, 1875, ...

Determine the common difference AND each unknown terms in the given arithmetic sequence using the explicit formula. Refer to the 4.3 example "Writing Explicit Formulas for Arithmetic and Geometric Sequences" in the Chapter 4 Summary.

5) 35, 40, 45, 50, ...
Find a_{38}

6) –32, –42, –52, –62, ...
Find a_{23}

7) –31, –29, –27, –25, ...
Find a_{27}

8) –34, –30, –26, –22, ...
Find a_{23}

Determine the *x*-intercept and the *y*-intercept of each equation. Then convert each equation from standard form to slope-intercept form and identify the slope. Refer to the 3.2 example "Identify the *x*-Intercept and *y*-Intercept of an Equation w/Two Variables" and the 3.3 example "Converting Equations between Standard Form and Slope-Intercept Form" in the Chapter 3 Summary.

9) $4x - 7y = -35$

10) $5x - 6y = 36$

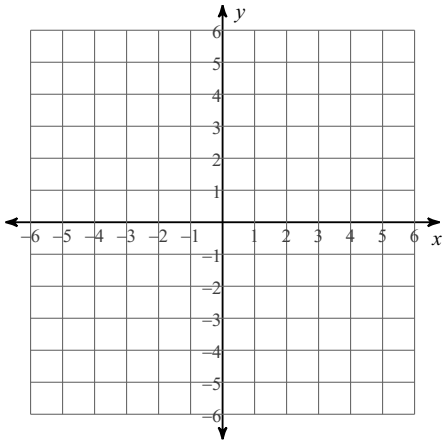
Solve each system of equations using the substitution method. Write your solution as an ordered pair (x, y). Refer to the 6.1 example "Solving Systems of Linear Equations Using the Substitution Method" in the Chapter 6 Summary.

11) $y = -2x - 11$
$y = x + 7$

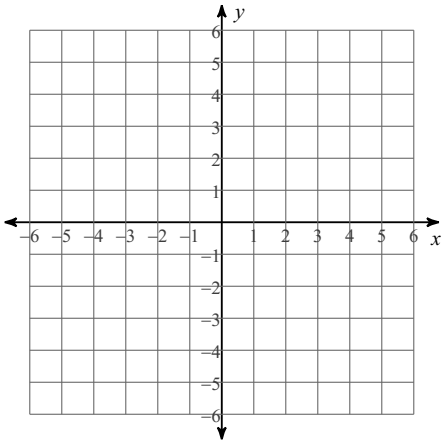
12) $-8x + y = -10$
$x = -3y - 5$

Graph each linear inequality. Use the test point $(0, 0)$ to determine which half-plane should be shaded. Refer to the 7.1 example "Graphing a Linear Inequality in Two Variables" in the Chapter 7 Summary.

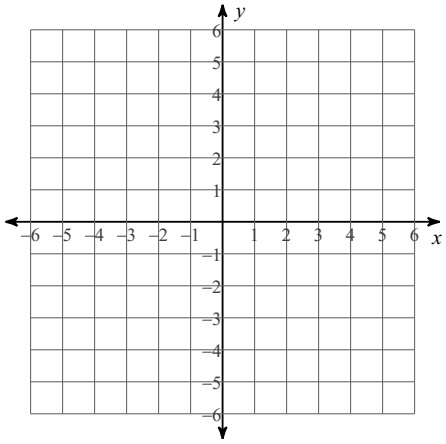
13) $5x + 3y \leq -15$



14) $2x - y \leq 5$



15) $x - 3y > -12$



16) $2x - 3y > 9$