3 CHAPTER REVIEW

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- Multi-Language Glossary
- Vocabulary practice

REVIEW KEY VOCABULARY

- system of two linear equations in two variables, *p. 153*
- solution of a system of linear equations, *p. 153*
- consistent, inconsistent, independent, dependent, *p. 154*
- substitution method, *p. 160*
- elimination method, *p. 161*
- system of linear inequalities in two variables, *p. 168*
- solution, graph of a system of inequalities, *p. 168*
- linear equation in three variables, *p. 178*
- system of three linear equations in three variables, *p. 178*
- solution of a system of three linear equations, *p. 178*
- ordered triple, *p. 178*
- matrix, *p. 187*
- dimensions, elements of a matrix, *p. 187*
- equal matrices, *p. 187*
- scalar, *p. 188*
- scalar multiplication, *p. 187*
- determinant, *p. 203*
- Cramer's rule, *p. 205*
- coefficient matrix, *p. 205*
- identity matrix, inverse matrices, *p. 210*
- matrix of variables, *p. 212*
- matrix of constants, *p. 212*

VOCABULARY EXERCISES

1. Copy and complete: A system of linear equations with at least one solution is __?__, while a system with no solution is __?__.
2. Copy and complete: A solution (x, y, z) of a system of linear equations in three variables is called a(n) __?__.
3. **WRITING** *Explain* when the product of two matrices is defined.

REVIEW EXAMPLES AND EXERCISES

Use the review examples and exercises below to check your understanding of the concepts you have learned in each lesson of Chapter 3.

3.1 Solve Linear Systems by Graphing *pp. 153–158*

EXAMPLE

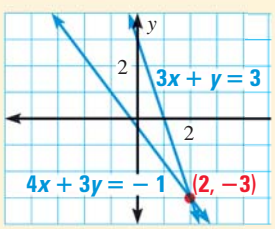
Graph the system and estimate the solution. Check the solution algebraically.

$3x + y = 3$ Equation 1
$4x + 3y = -1$ Equation 2

Graph both equations. From the graph, the lines appear to intersect at $(2, -3)$. You can check this algebraically.

$3(2) + (-3) = 3$ ✓ Equation 1 checks.

$4(2) + 3(-3) = -1$ ✓ Equation 2 checks.



EXERCISES

EXAMPLE 1 on p. 153 for Exs. 4–6

Graph the system and estimate the solution. Check the solution algebraically.

4. $2x - y = 9$
   $x + 3y = 8$
5. $2x - 3y = -2$
   $x + y = -6$
6. $3x + y = 6$
   $-x + 2y = 12$