Chapter 7 TECM 119 Practice Test

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Solve by the substitution method.

1) $x - 4y = 6$
$x = 5y$ 1) _____
A) $x = -30, y = -6$ B) $x = 30, y = 6$ C) $x = 0, y = 0$ D) $x = 6, y = 30$

2) $x + 3y = 0$
$x - 3y = 36$ 2) _____
A) $x = 3, y = -1$ B) $x = 18, y = 6$ C) $x = -6, y = 18$ D) $x = 18, y = -6$

3) $y = 3x + 5$
$2x + y = -5$ 3) _____
A) $x = -3, y = -4$ B) $x = -1, y = -3$ C) $x = -1, y = -2$ D) $x = -2, y = -1$

Solve the system of equations by the addition-subtraction method.

4) $x + 2y = 22$
$9x + 1y = 45$ 4) _____
A) $x = -4, y = 10$ B) $x = 4, y = 9$ C) $x = 3, y = 10$ D) Inconsistent

5) $6x + 6y = -24$
$2x + 4y = -22$ 5) _____
A) $x = 3, y = -6$ B) $x = 3, y = -7$ C) $x = 2, y = -6$ D) Inconsistent

6) $3x + 5y = 5$
$9x = 10 + 15y$ 6) _____
A) $x = \frac{25}{18}, y = \frac{1}{6}$ B) $x = \frac{1}{6}, y = \frac{25}{18}$ C) $x = \frac{1}{18}, y = \frac{1}{6}$ D) $x = \frac{1}{6}, y = \frac{1}{18}$

Solve the problem using the addition-subtraction method.

7) The perimeter of a rectangle is 40 cm. One side is 10 cm longer than the other side. Find the lengths of the sides. The dimensions can be found by solving the equations $2x + 2y = 40$ and $x - y = 10$. 7) _____
A) 9, 19 B) 5, 15 C) 10, 20 D) 5, 10

Solve the system of equations by determinants.

8) $3x + 3y = 27$
$2x - 3y = -7$ 8) _____
A) $x = -5, y = 4$ B) $x = 4, y = 5$ C) $x = -4, y = -5$ D) $x = 5, y = 4$

Use determinants and a calculator to solve the system of equations.

9) $300x + 200y = 400$
$200x + 800y = 600$ 9) _____
A) $x = 0.5, y = 1$ B) $x = 1, y = 200$ C) $x = 200, y = 0.5$ D) $x = 1, y = 0.5$

Solve the problem.

10) The perimeter of a rectangle is six times the width. If the length were increased by 4 inches and the width by 7 inches, the perimeter would be 160 inches. What is the width? 10) _____

A) 23 in. B) 46 in. C) 138 in. D) 69 in.

Chapter 7 TECM 119 Practice Test

Answer Key

1) B
2) D
3) D
4) B
5) B
6) A
7) B
8) B
9) D
10) A