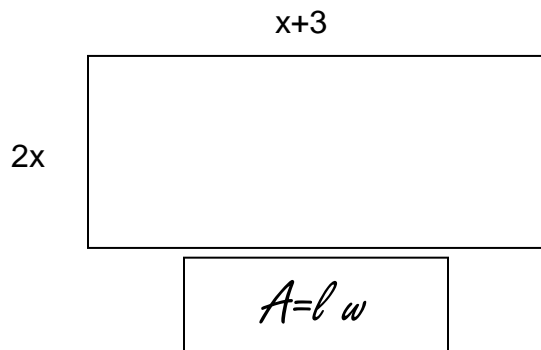


Algebra I EOC Practice #11

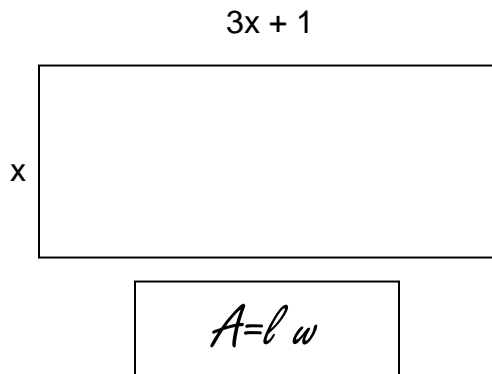
SPI 3102.3.2 Operate with polynomials and simplify results.

1. The length and width of rectangular garden are represented in the figure shown.



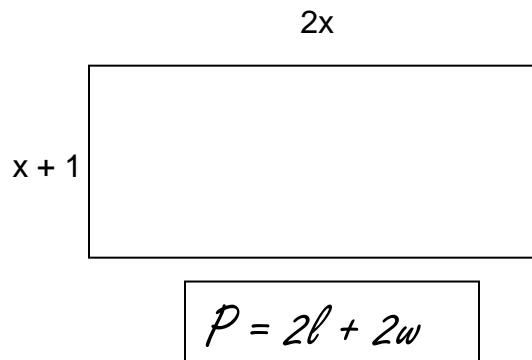
Which equation represents the area (A) of the garden in terms of x ?

- A. $A = 3x + 3$
 - B. $A = 2x^2 + 6x$
 - C. $A = 2x + 5$
 - D. $A = 8x$
2. The length and width of rectangular pool are represented in the figure shown.



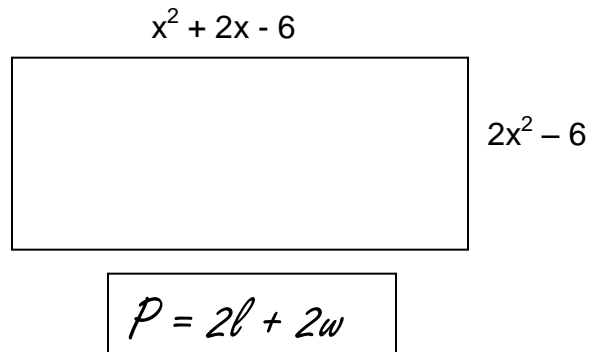
- A. $4x + x + 1$
- B. $3x^2 + x$
- C. $5x + 1$
- D. $3x - 1$

3. The length and width of rectangular garden are represented in the figure shown.



Which equation represents the perimeter (P) of the garden in terms of x ?

- A. $P = 6x^2 + 2$
 - B. $P = 4x$
 - C. $P = 6x + 2$
 - D. $P = 6x^2$
4. The length and width of rectangular garden are represented in the figure shown. Which expression represents the perimeter of the garden?



- A. $6x^2 - 4x$
- B. $6x^2 + 4x - 24$
- C. $6x^2$
- D. $3x^2 + 2x - 12$

5. Simplify: $(2x^2 - 6x + 3) + (2x - 7)$

- A. $2x^2 - 9x$
- B. $2x^2 - 4x - 4$
- C. $2x^2 + 4x + 10$
- D. $2x^2 - 9x + 4$

6. Simplify: $4x^3y^5(8x^2y + 4xy^2 - 10x^7y^5)$

- A. $32x^6y^5 + 16x^3y^{10} - 40x^{21}y^{25}$
- B. $32xy + 16xy - 40xy$
- C. $32x^5y^6 + 16x^4y^7 - 40x^{10}y^{10}$
- D. $30xy - 16xy + 10xy$

7. Simplify: $(x + y)(x + y)$

- A. $x^2 + 2xy + y^2$
- B. $x^2 + y^2$
- C. $2x^2 + 2xy + 2y^2$
- D. $x^2 - y^2$

8. Which is an equivalent form for all values of x, y, and z for which the expression is defined?

$$\frac{3x^6y^2z^{10}}{18x^2y^4z^3}$$

- A. $\frac{1x^4y^7}{6y^7}$
- B. $\frac{1xyz}{6}$
- C. $\frac{1x^4z^7}{6y^2}$
- D. $\frac{1}{6}$

9. Which values of x make the equation true?

$$x^2 + 8x + 7 = 0$$

- A. 6 and 1
- B. 8 and 1
- C. -7 and -1
- D. 7 and 1

10. Simplify:

$$(11m^3 + 5m^2 - m) + (m^2 + 9m - 7)$$

- A. $11m^3 + 6m^2 + 10m + 7$
- B. $11m^3 + 6m^2 + 8m - 7$
- C. $11m^3 + 5m^2 + 10m - 7$
- D. $11m^3 + 5m^2 + 8m + 7$

11. What is the sum of $k^3 + 9k^2 + 3$ and $7k^2 - 5$?

- A. $8k^3 + 16k^2 - 2$
- B. $8k^3 + 9k^2 + 2$
- C. $k^3 + 16k^2 - 2$
- D. $k^3 + 9k^2 + 2$

12. Simplify: $(3x + 2y)(5x + 4y)$

- A. $15x^2 + 8y^2$
- B. $15x^2 + 10xy + 8y^2$
- C. $8x^2 + 22xy + 6y^2$
- D. $15x^2 + 22xy + 8y^2$