



7. In the monomial  $-5x^2$ , the variable is \_\_\_\_\_.

### Short Answer

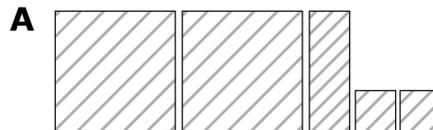
For #8 and 9, use the same key for the diagrams as was used in #1.

8. Write an expression that can be represented by the diagram shown.

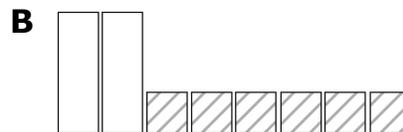


9. Match each expression on the left with its equivalent expression or model.

a)  $4x + 11 - 5 - 6x$



b)  $x - 2x^2 + 4$



c)  $3x^2 - 1 + 5x + 3 - x^2 - 4x$

**C**  $-2x + 5$

d)  $-(-5 + 2x)$

**D**  $-2x^2 + x + 4$

10. For the expression  $(2x^2 - 3x + 1) + (-x^2 + 5x + 2)$ , draw a model to represent sum of the two polynomials. Then, express the sum symbolically.

### Extended Response

11. Jared wants to have his birthday party at the movies. The special event price of a movie ticket is \$8.50 plus \$4 for popcorn and a drink. The cost to rent the party room after the movie is \$50 plus \$5 per person for pop and cake.

- Write an expression to represent the cost of movie tickets with popcorn and a drink.
- Write an expression to represent the cost of renting the party room and having pop and cake.
- What is the simplified expression for the total cost of Jared's birthday party?
- How much would it cost for Jared's birthday at the movies, including the party room, for Jared and five friends?