

## A.11

1.

Which is equivalent to  $(5x^2 + 4x + 1) + (-7x + 2)$ ?

- A  $-2x^2 + 6x + 1$   
 B  $5x^2 - 3x - 1$   
 C  $5x^2 - 3x + 3$   
 D  $5x^2 + 11x + 3$

2.

Which expression is equivalent to

$$\frac{8x^4 - 2x^2}{2x^2}?$$

- F  $4x^2$   
 G  $6x^2$   
 H  $4x^2 - 1$   
 J  $6x^2 - 1$

3.

Which expression is equivalent to  $(9x + 1)(9x - 1)$ ?

- A  $18x$   
 B  $81x^2 - 1$   
 C  $18x^2 - 1$   
 D  $81x^2 - 18x - 1$

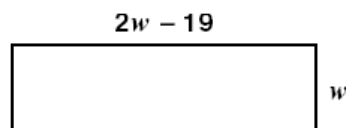
4.

Ben's Bakery charges a fee of  $2d + 25$  to deliver  $d$  boxes of baked goods while Dan's Bakery charges  $3d + 20$ . Which expression describes how much more Dan's Bakery charges than Ben's Bakery?

- F  $5d + 45$   
 G  $d - 5$   
 H  $d + 5$   
 J  $-d + 5$

5.

The length of a rectangular classroom floor is 19 feet less than twice the width.



Which expression represents the area of the classroom floor?

- F  $3w - 19$   
 G  $6w - 38$   
 H  $2w^2 - 19w$   
 J  $2w^2 - 19$

6.

$\frac{12x^5y - 3x^{10}y^3 + 21x^{15}y^4}{3x^5y}$  is equivalent

to —

- A  $4 - x^5y^2 + 7x^{10}y^3$   
 B  $4xy - x^5y^2 + 7x^{10}y^3$   
 C  $4 - x^5y^3 + 7x^{10}y^4$   
 D  $4xy - x^2y^3 + 7x^3y^4$

7.

If  $x \neq 0$ , which expression is equivalent to

$$\frac{8x^7 - 2x^3 + 2x}{2x}?$$

- A  $6x^6 - x^2$   
 B  $4x^6 - x^2$   
 C  $6x^7 - x^3 + x$   
 D  $4x^6 - x^2 + 1$

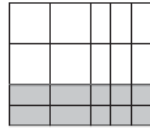
8.

Consider the following models

$$\square = x^2 \quad \text{▭} = x \quad \square = 1$$

$$\blacksquare = -x^2 \quad \blacksquare = -x \quad \blacksquare = -1$$

What polynomial is represented by this diagram?



- F  $4x^2 - 10x - 6$
- G  $4x^2 - 2x - 6$
- H  $4x^2 + 2x - 6$
- J  $4x^2 + 10x + 6$

9.

Which expression is equivalent to

$$2r^3y(x^2y - 3xy^2)?$$

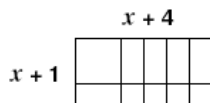
- F  $2x^5y^2 - 6x^4y^3$
- G  $3x^5y^2 - 5x^4y^3$
- H  $2x^6y^2 - 6x^3y^2$
- J  $2x^6y - 6x^3y^3$

10.

Consider the following models.

$$\square = x^2 \quad \text{▭} = x \quad \square = 1$$

Which expression represents the area of the diagram below?



- A  $x^2 + 5x + 4$
- B  $2x + 5$
- C  $4x + 10$
- D  $x^2 + 4$

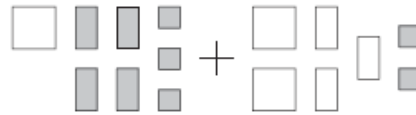
11.

Consider the following models.

$$\square = x^2 \quad \text{▭} = x \quad \square = 1$$

$$\blacksquare = -x^2 \quad \blacksquare = -x \quad \blacksquare = -1$$

What polynomial is represented by the following?

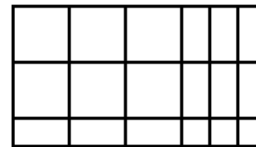


- F  $3x^2 - x - 5$
- G  $3x^2 - 7x - 5$
- H  $3x^2 + 7x - 5$
- J  $3x^2 + x - 5$

12.

$$\square = x^2 \quad \text{▭} = x \quad \square = 1$$

Consider the models above.



What polynomial is represented by this diagram?

- A  $6x^2 + 12x$
- B  $2x^2 + 3x + 1$
- C  $6x^2 + 9x + 3$
- D  $9x^2 + 6x + 3$

