Exercises – Adding, Subtracting, Multiplying, and Dividing Polynomials

1

$$a(2-a)+(a^2+3)-(2a+1)$$

Which of the following is equivalent to the expression shown above?

A) 2

B) $4a$

C) $2a+2$

D) $2a-2$

2

$$(-m^2n-n^2+3mn^2)-(m^2n-n^2+mn^2)$$

Which of the following is equivalent to the expression shown above?

A) $4mn^2$

B) $4m^2n$

C) $-2m^2n+2mn^2$

D) $2m^2n+2mn^2$

3

$$(2x^2-3x+1)-(-2x^2-3x+2)$$

If the expression above is written in the form ax^2+bx+c, in which a, b, and c are constants, what is the value of $a+b+c$?

A) 2

B) 3

C) 4

D) 5

4

$$(x^3-x^2+3x-3)\div(x-1)$$

Which of the following is the quotient of the expression shown above?

A) x^2-3

B) x^2+3

C) x^2-2x

D) x^2-2x+3

5

$$(14x^2+9x-20)\div(ax-1)=7x+8+\frac{-12}{ax-1}$$

In the equation above, a is a constant and $ax-1\neq 0$. What is the value of a?

6

If $\frac{6x^2-5x+4}{-3x+1}=-2x+1+\frac{A}{-3x+1}$, what is the value of A?