Exercise - Variables and Expressions

1

Twice the product of m and n decreased by the square of the sum of m and n.

Which of the following is an expression for the statement above?

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

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

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

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

2

The product of a number x and four decreased by twelve.

Which of the following is an expression for the statement above?

A) $4x + 12$

B) $4(x + 12)$

C) $4(x - 12)$

D) $4x - 12$

3

The quotient of 19 and a number d increased by seven.

Which of the following is an expression for the statement above?

A) $\dfrac{19}{d} + 7$

B) $\dfrac{d}{19} + 7$

C) $\dfrac{19 + d}{7}$

D) $\dfrac{d + 7}{19}$

4

Mario received y text messages each minute for 10 minutes yesterday and received t text messages each minute for 20 minutes today. What is the total number of text messages he received for two days in terms of y and t?

A) $30yt$

B) $200yt$

C) $20y + 10t$

D) $10y + 20t$

5

Which of the following expressions represents the product of $3k$ and the sum of m and one third of n?

A) $3km + \dfrac{1}{3}n$

B) $3k \cdot \dfrac{1}{3}(m + n)$

C) $3k(m + \dfrac{1}{3}n)$

D) $3k(m + n + \dfrac{1}{3})$

6

The difference between two numbers is eight. If the smaller number is n to the third power what is the greater number?

A) $n^3 - 8$

B) $n^3 + 8$

C) $8 - n^3$

D) $8n^3$