Topic: Multiplying signed numbers

Question: Simplify the expression.

$$-3 \cdot 4$$

Answer choices:

A   12

B -12

C   7

D -1

Solution: B

Whenever we multiply two numbers where one number is positive and the other is negative, we'll get a negative answer. We know that $3 \cdot 4 = 12$, and since one of our numbers is negative and the other is positive, we know that $-3 \cdot 4 = -12$.

Topic: Multiplying signed numbers

Question: Which of these is true?

Answer choices:

A $5 \cdot 2 = 7$

B $-5 \cdot 2 = -10$

C $5 \cdot (-2) = 10$

D $-5 \cdot (-2) = -10$

Solution: B

Multiplying two numbers together that have the same sign will always result in a positive number. Multiplying two numbers together that have different signs will always result in a negative number.

$$-5 \cdot 2 = -10$$

$$-10 = -10$$

Topic: Multiplying signed numbers

Question: Simplify the expression.

$$-3 \cdot (-2)$$

Answer choices:

A   5

B   −5

C   6

D   −6

Solution: C

Multiplying two numbers that have the same sign will always result in a positive number. Multiplying two numbers that have different signs will always result in a negative number.

$$-3 \cdot (-2) = 6$$