Topic: Dividing signed numbers

Question: Which of these is true?

Answer choices:

A $\frac{-12}{4} = -3$

B $\frac{12}{-4} = 3$

C $\frac{-12}{-4} = -3$

D $\frac{12}{4} = -3$

Solution: A

Dividing a positive number by another positive number, or dividing a negative number by another negative number, will always result in a positive answer. In other words, if the signs are the same, the answer will be positive.

On the other hand, dividing a negative number by a positive number, or dividing a positive number by a negative number, will always result in a negative answer. In other words, if the signs are different, the answer will be negative.

$$\frac{-12}{4} = -3$$

Topic: Dividing signed numbers

Question: Simplify the expression.

$$\frac{-10}{5}$$

Answer choices:

A 2

B 1

C 5

D -2

Solution: D

Dividing a positive number by another positive number, or dividing a negative number by another negative number, will always result in a positive answer. In other words, if the signs are the same, the answer will be positive.

On the other hand, dividing a negative number by a positive number, or dividing a positive number by a negative number, will always result in a negative answer. In other words, if the signs are different, the answer will be negative.

$$\frac{-10}{5} = -2$$

Topic: Dividing signed numbers

Question: Simplify the expression.

$$\frac{-25}{-5}$$

Answer choices:

A 1

B 0

C -5

D 5

Solution: D

Dividing a positive number by another positive number, or dividing a negative number by another negative number, will always result in a positive answer. In other words, if the signs are the same, the answer will be positive.

On the other hand, dividing a negative number by a positive number, or dividing a positive number by a negative number, will always result in a negative answer. In other words, if the signs are different, the answer will be negative.

$$\frac{-25}{-5} = 5$$