

Order of Operations (E)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$(8 \div ((-8) + 7)^3) \times ((-10) - (-2) + 5)$$

$$((-9) + (-4) - (-10)) \times ((-5) \div (2 - (-3)))^3$$

$$(9 \div (7 + (-8))^2) \times (-3) - 4^2$$

$$(3^3 \times (2 + (-2)))^2 \div (-3) - 8$$

$$(2^3 \times ((-6) + 3 - (-4)))^2 \div (-8)$$

$$((-2)^2 \times 9) \div (3^2 + (-8) - (-5))$$

Order of Operations (E) Answers

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & (8 \div ((-8) + 7))^3 \times ((-10) - (-2) + 5) \\ &= (8 \div (-1))^3 \times ((-10) - (-2) + 5) \\ &= (8 \div (-1)) \times ((-10) - (-2) + 5) \\ &= (-8) \times ((-10) - (-2) + 5) \\ &= (-8) \times ((-8) + 5) \\ &= (-8) \times (-3) \\ &= 24 \end{aligned}$$

$$\begin{aligned} & ((-9) + (-4) - (-10)) \times ((-5) \div (2 - (-3)))^3 \\ &= ((-13) - (-10)) \times ((-5) \div (2 - (-3)))^3 \\ &= (-3) \times ((-5) \div (2 - (-3)))^3 \\ &= (-3) \times ((-5) \div 5)^3 \\ &= (-3) \times (-1)^3 \\ &= (-3) \times (-1) \\ &= 3 \end{aligned}$$

$$\begin{aligned} & (9 \div (7 + (-8)))^2 \times (-3) - 4^2 \\ &= (9 \div (-1))^2 \times (-3) - 4^2 \\ &= (9 \div 1) \times (-3) - 4^2 \\ &= 9 \times (-3) - 4^2 \\ &= 9 \times (-3) - 16 \\ &= (-27) - 16 \\ &= -43 \end{aligned}$$

$$\begin{aligned} & (3^3 \times (2 + (-2)))^2 \div (-3) - 8 \\ &= (3^3 \times 0)^2 \div (-3) - 8 \\ &= (27 \times 0)^2 \div (-3) - 8 \\ &= 0^2 \div (-3) - 8 \\ &= 0 \div (-3) - 8 \\ &= 0 - 8 \\ &= -8 \end{aligned}$$

$$\begin{aligned} & (2^3 \times ((-6) + 3 - (-4)))^2 \div (-8) \\ &= (2^3 \times ((-3) - (-4)))^2 \div (-8) \\ &= (2^3 \times 1)^2 \div (-8) \\ &= (8 \times 1)^2 \div (-8) \\ &= 8^2 \div (-8) \\ &= 64 \div (-8) \\ &= -8 \end{aligned}$$

$$\begin{aligned} & ((-2)^2 \times 9) \div (3^2 + (-8) - (-5)) \\ &= (4 \times 9) \div (3^2 + (-8) - (-5)) \\ &= 36 \div (3^2 + (-8) - (-5)) \\ &= 36 \div (9 + (-8) - (-5)) \\ &= 36 \div (1 - (-5)) \\ &= 36 \div 6 \\ &= 6 \end{aligned}$$