Order of Operations with Decimals (E)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left((-4{,}5)^2 + (-7{,}8) - 8{,}4\right) \times (-5{,}2)$

$((-0{,}1) + (-8{,}3)) \div (-2{,}5) - (1{,}4)^2$

$(2{,}5)^2 \times ((-4{,}6) - 7{,}6 + (-0{,}8))$

$((-3{,}8) - (-8{,}3) + (-3{,}5)) \times (-4{,}6)^2$

$(6{,}4 + (-3{,}9) - 2{,}5)^2 \times (-2{,}8)$

$(4{,}3)^2 + (-4{,}8) \times (4{,}4 - 5{,}2)$

$(-8{,}2) \times ((-3{,}4) - (-1{,}9) + 2{,}5)^2$

$(0{,}5 \times 9{,}4)^2 \div 4{,}7 - 5{,}4$

Order of Operations with Decimals (E) Answers

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\underline{(-4{,}5)^2} + (-7{,}8) - 8{,}4\right) \times (-5{,}2)$

$= \left(\underline{20{,}25 + (-7{,}8)} - 8{,}4\right) \times (-5{,}2)$

$= \left(\underline{12{,}45 - 8{,}4}\right) \times (-5{,}2)$

$= \underline{4{,}05 \times (-5{,}2)}$

$= -21{,}06$

$\left(\underline{(-0{,}1) + (-8{,}3)}\right) \div (-2{,}5) - (1{,}4)^2$

$= (-8{,}4) \div (-2{,}5) - \underline{(1{,}4)^2}$

$= \underline{(-8{,}4) \div (-2{,}5)} - 1{,}96$

$= \underline{3{,}36 - 1{,}96}$

$= 1{,}4$

$(2{,}5)^2 \times \left(\underline{(-4{,}6) - 7{,}6} + (-0{,}8)\right)$

$= (2{,}5)^2 \times \left(\underline{(-12{,}2) + (-0{,}8)}\right)$

$= \underline{(2{,}5)^2} \times (-13)$

$= \underline{6{,}25 \times (-13)}$

$= -81{,}25$

$\left(\underline{(-3{,}8) - (-8{,}3)} + (-3{,}5)\right) \times (-4{,}6)^2$

$= \left(\underline{4{,}5 + (-3{,}5)}\right) \times (-4{,}6)^2$

$= 1 \times \underline{(-4{,}6)^2}$

$= \underline{1 \times 21{,}16}$

$= 21{,}16$

$\left(\underline{6{,}4 + (-3{,}9)} - 2{,}5\right)^2 \times (-2{,}8)$

$= \left(\underline{2{,}5 - 2{,}5}\right)^2 \times (-2{,}8)$

$= \underline{0^2} \times (-2{,}8)$

$= \underline{0 \times (-2{,}8)}$

$= 0$

$(4{,}3)^2 + (-4{,}8) \times \left(\underline{4{,}4 - 5{,}2}\right)$

$= \underline{(4{,}3)^2} + (-4{,}8) \times (-0{,}8)$

$= 18{,}49 + \underline{(-4{,}8) \times (-0{,}8)}$

$= \underline{18{,}49 + 3{,}84}$

$= 22{,}33$

$(-8{,}2) \times \left(\underline{(-3{,}4) - (-1{,}9)} + 2{,}5\right)^2$

$= (-8{,}2) \times \left(\underline{(-1{,}5) + 2{,}5}\right)^2$

$= (-8{,}2) \times \underline{1^2}$

$= \underline{(-8{,}2) \times 1}$

$= -8{,}2$

$\left(\underline{0{,}5 \times 9{,}4}\right)^2 \div 4{,}7 - 5{,}4$

$= \underline{(4{,}7)^2} \div 4{,}7 - 5{,}4$

$= \underline{22{,}09 \div 4{,}7} - 5{,}4$

$= \underline{4{,}7 - 5{,}4}$

$= -0{,}7$