Order of Operations with Decimals (J)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$(4{,}3 \div (-2{,}5) + 2{,}1) \times (1{,}5 - (-6{,}4) + (-4{,}9))^2$

$(-0{,}2)^2 \div ((9{,}3 + (-5{,}1) - 7{,}9) \times 1{,}4 + 5{,}1)$

$(-0{,}5)^2 \times (((-4{,}3) + (-3{,}7)) \div (1{,}9 - 2{,}9))^2$

Order of Operations with Decimals (J) Answers

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\left(4{,}3 \div (-2{,}5) + 2{,}1\right) \times (1{,}5 - (-6{,}4) + (-4{,}9))^2$$
$$= \left((-1{,}72) + 2{,}1\right) \times (1{,}5 - (-6{,}4) + (-4{,}9))^2$$
$$= 0{,}38 \times \left(1{,}5 - (-6{,}4) + (-4{,}9)\right)^2$$
$$= 0{,}38 \times \left(7{,}9 + (-4{,}9)\right)^2$$
$$= 0{,}38 \times 3^2$$
$$= 0{,}38 \times 9$$
$$= 3{,}42$$

$$(-0{,}2)^2 \div \left(\left(9{,}3 + (-5{,}1) - 7{,}9\right) \times 1{,}4 + 5{,}1\right)$$
$$= (-0{,}2)^2 \div \left(\left(4{,}2 - 7{,}9\right) \times 1{,}4 + 5{,}1\right)$$
$$= (-0{,}2)^2 \div \left(\left(-3{,}7\right) \times 1{,}4 + 5{,}1\right)$$
$$= (-0{,}2)^2 \div \left(\left(-5{,}18\right) + 5{,}1\right)$$
$$= (-0{,}2)^2 \div (-0{,}08)$$
$$= 0{,}04 \div (-0{,}08)$$
$$= -0{,}5$$

$$(-0{,}5)^2 \times \left(\left((-4{,}3) + (-3{,}7)\right) \div (1{,}9 - 2{,}9)\right)^2$$
$$= (-0{,}5)^2 \times \left((-8) \div \left(1{,}9 - 2{,}9\right)\right)^2$$
$$= (-0{,}5)^2 \times \left((-8) \div (-1)\right)^2$$
$$= (-0{,}5)^2 \times 8^2$$
$$= 0{,}25 \times 8^2$$
$$= 0{,}25 \times 64$$
$$= 16$$

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