Order of Operations with Decimals (A)

Name:

Date:

$$0.75 \times 3.2 + (9.1)^2 \div \left((-2.3) - (-0.9) \right)^2$$

$$\left((-5.4)^2 \div 3.6 \right) \times 3.1 - (-2.2)^2 + (-3.2)$$

$$(((-8.9) + (-3.9)) \div 3.2) \times (-3.2) - 7.3 + (-4.6)^2$$

Order of Operations with Decimals (A) Answers

Name:

Date:

Solve each expression using the correct order of operations.

$$0.75 \times 3.2 + (9.1)^2 \div \left((-2.3) - (-0.9) \right)^2$$

$$= 0.75 \times 3.2 + (9.1)^{2} \div (-1.4)^{2}$$

$$=0.75\times3.2+82.81\div(-1.4)^2$$

$$= \underline{0.75 \times 3.2} + 82.81 \div 1.96$$

$$=2.4+82.81\div1.96$$

$$= 2.4 + 42.25$$

= 44.65

$$\left(\underline{(-5.4)^2} \div 3.6\right) \times 3.1 - (-2.2)^2 + (-3.2)$$

$$=(29.16 \div 3.6) \times 3.1 - (-2.2)^2 + (-3.2)$$

$$=8.1\times3.1-\left(-2.2\right)^2+\left(-3.2\right)$$

$$= 8.1 \times 3.1 - 4.84 + (-3.2)$$

$$= 25.11 - 4.84 + (-3.2)$$

$$=20.27+(-3.2)$$

= 17.07

$$\left(\left(\frac{(-8.9) + (-3.9)}{(-3.9)}\right) \div 3.2\right) \times (-3.2) - 7.3 + (-4.6)^2$$

$$= \left((-12.8) \div 3.2 \right) \times (-3.2) - 7.3 + (-4.6)^{2}$$

$$=(-4)\times(-3.2)-7.3+(-4.6)^2$$

$$=(-4)\times(-3.2)-7.3+21.16$$

$$=$$
 12.8 $-$ 7.3 $+$ 21.16

$$= 5.5 + 21.16$$

= 26.66

Order of Operations with Decimals (B)

Name:

Date:

$$(2.5)^2 - (-5.6) \times ((-0.6) + 6.3 \div (2.1 \times (-1.2)))$$

$$(-2.1)^2 - 8.6 \times (-2.9) + (-1.8) \div (1.4 \div 3.5)$$

$$(6.6)^2 \div 1.1 + 7.3 - 1.4 \times ((-2.2) - (-3.6))$$

Order of Operations with Decimals (B) Answers

Date:

$$(2.5)^{2} - (-5.6) \times \left((-0.6) + 6.3 \div \left(\underbrace{2.1 \times (-1.2)} \right) \right)$$

$$= (2.5)^{2} - (-5.6) \times \left((-0.6) + \underbrace{6.3 \div (-2.52)} \right)$$

$$= (2.5)^{2} - (-5.6) \times \left(\underbrace{(-0.6) + (-2.5)} \right)$$

$$= \underbrace{(2.5)^{2}} - (-5.6) \times (-3.1)$$

$$= 6.25 - \underbrace{(-5.6) \times (-3.1)}_{=6.25 - 17.36}$$

$$=-11.11$$

$$(-2.1)^{2} - 8.6 \times (-2.9) + (-1.8) \div (\underline{1.4 \div 3.5})$$

$$= (-2.1)^{2} - 8.6 \times (-2.9) + (-1.8) \div 0.4$$

$$= 4.41 - \underline{8.6 \times (-2.9)} + (-1.8) \div 0.4$$

$$= 4.41 - (-24.94) + (-1.8) \div 0.4$$

$$= \underline{4.41 - (-24.94)} + (-4.5)$$

$$= \underline{29.35 + (-4.5)}$$

$$= 24.85$$

$$(6.6)^{2} \div 1.1 + 7.3 - 1.4 \times \left((-2.2) - (-3.6) \right)$$

$$= (6.6)^{2} \div 1.1 + 7.3 - 1.4 \times 1.4$$

$$= 43.56 \div 1.1 + 7.3 - 1.4 \times 1.4$$

$$= 39.6 + 7.3 - 1.4 \times 1.4$$

$$= 39.6 + 7.3 - 1.96$$

$$= 46.9 - 1.96$$

$$= 44.94$$

Order of Operations with Decimals (C)

Name:

Date:

$$0.7 + (-8.8) \div 2.2 \times \left((-8.7)^2 - (8.7)^2 \right)$$

$$(9.9 - 1.8 \times 5.5)^3 \div 1.6 + (-4.4) + 7.4$$

$$5.7 - \left(-7.1\right)^2 + \left(-1.6\right)^2 \times \left((-5.5) \div (-0.2)\right)$$

Order of Operations with Decimals (C) Answers

Name: Date: ____

$$0.7 + (-8.8) \div 2.2 \times \left(\frac{(-8.7)^2}{-(8.7)^2} - (8.7)^2 \right)$$

$$= 0.7 + (-8.8) \div 2.2 \times \left(75.69 - \frac{(8.7)^2}{-(8.7)^2} \right)$$

$$= 0.7 + (-8.8) \div 2.2 \times (75.69 - 75.69)$$

$$= 0.7 + \frac{(-8.8) \div 2.2}{-(9.7) \times (-4) \times 0}$$

$$= 0.7 + \frac{(-4) \times 0}{-(9.7) \times (-4) \times 0}$$

$$= 0.7$$

$$(9.9 - \underline{1.8 \times 5.5})^{3} \div 1.6 + (-4.4) + 7.4$$

$$= (\underline{9.9 - 9.9})^{3} \div 1.6 + (-4.4) + 7.4$$

$$= \underline{0^{3}} \div 1.6 + (-4.4) + 7.4$$

$$= \underline{0 \div 1.6} + (-4.4) + 7.4$$

$$= \underline{0 + (-4.4)} + 7.4$$

$$= \underline{(-4.4)} + 7.4$$

$$= \underline{3}$$

$$5.7 - (-7.1)^{2} + (-1.6)^{2} \times \left((-5.5) \div (-0.2) \right)$$

$$= 5.7 - (-7.1)^{2} + (-1.6)^{2} \times 27.5$$

$$= 5.7 - 50.41 + (-1.6)^{2} \times 27.5$$

$$= 5.7 - 50.41 + \frac{2.56 \times 27.5}{2.56 \times 27.5}$$

$$= \frac{5.7 - 50.41}{2.56 \times 27.5} + 70.4$$

$$= (-44.71) + 70.4$$

$$= 25.69$$

Order of Operations with Decimals (D)

Name:

Date:

$$((-3.4) \div (-8.5)) \times (-5.5) + (9.5)^2 - (2.4)^2$$

$$(2.4)^2 \div ((-0.2) - 2.2) \times (-8.4) + 5.8 \times (-2.7)$$

$$3.2 + 4.4 - \left(0.2\right)^2 \times \left(2.1 \div \left(-2.1\right)\right)^3$$

Order of Operations with Decimals (D) Answers

Name:

Date:

$$\left(\frac{(-3.4) \div (-8.5)}{(-8.5)}\right) \times (-5.5) + (9.5)^{2} - (2.4)^{2}$$

$$= 0.4 \times (-5.5) + \frac{(9.5)^{2}}{(-2.4)^{2}} - (2.4)^{2}$$

$$= 0.4 \times (-5.5) + 90.25 - \frac{(2.4)^{2}}{(-5.5)^{2}}$$

$$= \frac{0.4 \times (-5.5)}{(-2.2) + 90.25} - 5.76$$

$$= \frac{(-2.2) + 90.25}{(-2.2) + 90.25} - 5.76$$

$$= \frac{88.05 - 5.76}{(-2.2) + 90.25}$$

$$= 82.29$$

$$(2.4)^{2} \div \left((-0.2) - 2.2 \right) \times (-8.4) + 5.8 \times (-2.7)$$

$$= (2.4)^{2} \div (-2.4) \times (-8.4) + 5.8 \times (-2.7)$$

$$= 5.76 \div (-2.4) \times (-8.4) + 5.8 \times (-2.7)$$

$$= (-2.4) \times (-8.4) + 5.8 \times (-2.7)$$

$$= 20.16 + 5.8 \times (-2.7)$$

$$= 20.16 + (-15.66)$$

$$= 4.5$$

$$3.2 + 4.4 - (0.2)^{2} \times \left(2.1 \div (-2.1)\right)^{3}$$

$$= 3.2 + 4.4 - (0.2)^{2} \times (-1)^{3}$$

$$= 3.2 + 4.4 - 0.04 \times (-1)^{3}$$

$$= 3.2 + 4.4 - 0.04 \times (-1)$$

$$= 3.2 + 4.4 - (-0.04)$$

$$= 7.6 - (-0.04)$$

$$= 7.64$$

Order of Operations with Decimals (E)

Name:

Date:

$$((-8.9)^2 \times (8.3 - 4.4 + (-3.9)))^3 \div 7.2$$

$$(((-8.6) + 7.4) \times 6.8) \div (0.8)^2 - (7.2)^2$$

$$8.3 + {(2.5)}^2 - (-8.9) \div (0.2 \times 2.5 \times (-0.5))$$

Order of Operations with Decimals (E) Answers

Name:	Date:
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$$((-8.9)^{2} \times (8.3 - 4.4 + (-3.9)))^{3} \div 7.2$$

$$= ((-8.9)^{2} \times (3.9 + (-3.9)))^{3} \div 7.2$$

$$= ((-8.9)^{2} \times 0)^{3} \div 7.2$$

$$= (79.21 \times 0)^{3} \div 7.2$$

$$= 0^{3} \div 7.2$$

$$= 0 \div 7.2$$

$$= 0$$

$$(((-8.6) + 7.4) \times 6.8) \div (0.8)^{2} - (7.2)^{2}$$

$$\left(\left(\frac{(-8.6) + 7.4}{(-8.6) + 7.4}\right) \times 6.8\right) \div (0.8)^2 - (7.2)^2$$

$$= \left(\frac{(-1.2) \times 6.8}{(-8.16) \div (0.8)^2} - (7.2)^2\right)$$

$$= (-8.16) \div \frac{(0.8)^2}{(-8.16) \div 0.64} - \frac{(7.2)^2}{(-8.16) \div 0.64}$$

$$= \frac{(-8.16) \div 0.64}{(-12.75) - 51.84}$$

$$= -64.59$$

$$8.3 + (2.5)^{2} - (-8.9) \div (\underline{0.2 \times 2.5} \times (-0.5))$$

$$= 8.3 + (2.5)^{2} - (-8.9) \div (\underline{0.5 \times (-0.5)})$$

$$= 8.3 + (\underline{2.5})^{2} - (-8.9) \div (-0.25)$$

$$= 8.3 + 6.25 - (-8.9) \div (-0.25)$$

$$= 8.3 + 6.25 - 35.6$$

$$= 14.55 - 35.6$$

$$= -21.05$$

Order of Operations with Decimals (F)

Name:

Date:

$$2.8 \div (-2.8) \times \left((-5.3)^2 - (-0.8) + 8.8 - (-0.9) \right)$$

$$8.3 imes \left(\left(\left(-7.5
ight) - 0.5
ight) \div \left(5.8 + \left(-7.8
ight)
ight)^2$$

$$(5.6)^2 \div (-6.4) + (-4.5) \times (((-1.4) - (-0.4)) \times 3.8)$$

Order of Operations with Decimals (F) Answers

Name:	Date:
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Solve each expression using the correct order of operations.

$$2.8 \div (-2.8) \times \left(\frac{(-5.3)^2}{-(-0.8)} - (-0.8) + 8.8 - (-0.9) \right)$$

$$= 2.8 \div (-2.8) \times \left(\frac{28.09 - (-0.8)}{-(-0.8)} + 8.8 - (-0.9) \right)$$

$$= 2.8 \div (-2.8) \times \left(\frac{28.89 + 8.8}{-(-0.9)} - (-0.9) \right)$$

$$= 2.8 \div (-2.8) \times \left(\frac{37.69 - (-0.9)}{-(-0.9)} \right)$$

$$= \frac{2.8 \div (-2.8)}{-(-0.8)} \times 38.59$$

$$= \frac{(-1) \times 38.59}{-(-0.8)}$$

$$= -38.59$$

$$8.3 \times \left(\left(\frac{(-7.5) - 0.5}{(-8) \div (5.8 + (-7.8))^3} \right)^2 \right)$$

$$= 8.3 \times \left((-8) \div \left(\frac{5.8 + (-7.8)}{(-2)^3} \right)^2 \right)$$

$$= 8.3 \times \left((-8) \div (-8) \right)^2$$

$$= 8.3 \times \frac{1^2}{(-8) \div (-8)}$$

$$= 8.3 \times 1$$

$$= 8.3$$

$$(5.6)^2 \div (-6.4) + (-4.5) \times \left(\left(\frac{(-1.4) - (-0.4)}{(-1) \times 3.8} \right) \times 3.8 \right)$$

$$= (5.6)^2 \div (-6.4) + (-4.5) \times (-3.8)$$

$$= \frac{(5.6)^2}{(-6.4) + (-4.5) \times (-3.8)}$$

$$= \frac{31.36 \div (-6.4) + (-4.5) \times (-3.8)}{(-4.9) + (-4.5) \times (-3.8)}$$

$$= (-4.9) + \frac{(-4.5) \times (-3.8)}{(-4.9) + 17.1}$$

= 12.2

Order of Operations with Decimals (G)

Name:

Date:

$$((-7.5) \times (2.8)^2) \div 1.25 + 6.4 - 9.6 - (-2.5)$$

$$\left(\left(1.8 \right)^2 \div \left(-1.8 \right) \right) \times \left(-9.1 \right) - \left(6.3 \right)^2 + 4.3$$

$$((-2.1) + 2.1) \div 8.8 \times (7.3)^2 - (-2.2)^2$$

Order of Operations with Decimals (G) Answers

Name:	
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Date:

$$((-7.5) \times (2.8)^{2}) \div 1.25 + 6.4 - 9.6 - (-2.5)$$

$$= ((-7.5) \times 7.84) \div 1.25 + 6.4 - 9.6 - (-2.5)$$

$$= (-58.8) \div 1.25 + 6.4 - 9.6 - (-2.5)$$

$$= (-47.04) + 6.4 - 9.6 - (-2.5)$$

$$= (-40.64) - 9.6 - (-2.5)$$

$$= (-50.24) - (-2.5)$$

$$= -47.74$$

$$\left(\frac{(1.8)^2}{(1.8)^2} \div (-1.8)\right) \times (-9.1) - (6.3)^2 + 4.3$$

$$= \left(\frac{3.24 \div (-1.8)}{(-1.8)}\right) \times (-9.1) - (6.3)^2 + 4.3$$

$$= (-1.8) \times (-9.1) - \frac{(6.3)^2}{(-1.8)^2} + 4.3$$

$$= \frac{(-1.8) \times (-9.1)}{(-9.1)^2} - 39.69 + 4.3$$

$$= \frac{16.38 - 39.69}{(-23.31) + 4.3}$$

$$= -19.01$$

$$\left(\frac{(-2.1) + 2.1}{} \right) \div 8.8 \times (7.3)^2 - (-2.2)^2$$

$$= 0 \div 8.8 \times \frac{(7.3)^2}{} - (-2.2)^2$$

$$= 0 \div 8.8 \times 53.29 - \frac{(-2.2)^2}{}$$

$$= \frac{0 \div 8.8 \times 53.29 - 4.84 }{}$$

$$= \frac{0 \times 53.29}{} - 4.84$$

$$= \frac{0 - 4.84}{}$$

$$= -4.84$$

Order of Operations with Decimals (H)

Name: _____

Date:

$$(-3.5) \times (-1.8) - (0.2)^2 + 3.1 \div (0.6 - (-1.9))$$

$$\left((-5.9)-7.2+(-3.2)^2\right)\times \left(7.1\div (-7.1)\right)^2$$

$$\left(\left(1.4 \right)^2 - 2.6 \times \left(-6.5 \right) + \left(-1.8 \right) \div 0.1 \right) \times 5.5$$

Order of Operations with Decimals (H) Answers

Name:

Date:

$$(-3.5) \times (-1.8) - (0.2)^{2} + 3.1 \div \left(\frac{0.6 - (-1.9)}{0.6 - (-1.9)}\right)$$

$$= (-3.5) \times (-1.8) - \frac{(0.2)^{2}}{0.04 + 3.1} \div 2.5$$

$$= \frac{(-3.5) \times (-1.8)}{0.04 + 3.1} - 0.04 + 3.1 \div 2.5$$

$$= 6.3 - 0.04 + \frac{3.1 \div 2.5}{0.04 + 1.24}$$

$$= \frac{6.26 + 1.24}{0.04 + 1.24}$$

$$= 7.5$$

$$\left((-5.9) - 7.2 + \underline{(-3.2)^2} \right) \times (7.1 \div (-7.1))^2$$

$$= \left(\underline{(-5.9) - 7.2} + 10.24 \right) \times (7.1 \div (-7.1))^2$$

$$= \left(\underline{(-13.1) + 10.24} \right) \times (7.1 \div (-7.1))^2$$

$$= (-2.86) \times \left(\underline{7.1 \div (-7.1)} \right)^2$$

$$= (-2.86) \times \underline{(-1)^2}$$

$$= \underline{(-2.86) \times 1}$$

$$= -2.86$$

$$\left(\underline{(1.4)^2} - 2.6 \times (-6.5) + (-1.8) \div 0.1 \right) \times 5.5$$

$$= \left(1.96 - \underline{2.6 \times (-6.5)} + (-1.8) \div 0.1 \right) \times 5.5$$

$$= \left(1.96 - (-16.9) + \underline{(-1.8) \div 0.1}\right) \times 5.5$$

$$= \left(\underline{1.96 - (-16.9)} + (-18)\right) \times 5.5$$

$$= \left(\underline{18.86 + (-18)}\right) \times 5.5$$

$$= \underline{0.86 \times 5.5}$$

$$= 4.73$$

Order of Operations with Decimals (I)

Name: _____ Date: ____

$$(4.2)^2 \div ((-1.5) \times 9.8 + 3.1 - 8.2 + 5.1)$$

$$(-1.1) + (-1.4)^2 - (-0.1) \div \left(2.5 \times (0.4)^2\right)$$

$$(-5.4) - (1.4)^2 + (0.2)^2 \div ((-1.6) \times (-2.5))$$

Order of Operations with Decimals (I) Answers

Name: Date:

Solve each expression using the correct order of operations.

$$(4.2)^{2} \div \left((-1.5) \times 9.8 + 3.1 - 8.2 + 5.1 \right)$$

$$= (4.2)^{2} \div \left((-14.7) + 3.1 - 8.2 + 5.1 \right)$$

$$= (4.2)^{2} \div \left((-11.6) - 8.2 + 5.1 \right)$$

$$= (4.2)^{2} \div \left((-19.8) + 5.1 \right)$$

$$= (4.2)^{2} \div (-14.7)$$

$$= 17.64 \div (-14.7)$$

$$= -1.2$$

$$(-1.1) + (-1.4)^{2} - (-0.1) \div \left(2.5 \times (0.4)^{2} \right)$$

$$= (-1.1) + (-1.4)^{2} - (-0.1) \div (2.5 \times 0.16)$$

$$= (-1.1) + (-1.4)^{2} - (-0.1) \div 0.4$$

$$= (-1.1) + 1.96 - (-0.1) \div 0.4$$

$$= (-1.1) + 1.96 - (-0.25)$$

=0.86-(-0.25)

= 1.11

$$(-5.4) - (1.4)^{2} + (0.2)^{2} \div \left((-1.6) \times (-2.5) \right)$$

$$= (-5.4) - (1.4)^{2} + (0.2)^{2} \div 4$$

$$= (-5.4) - 1.96 + (0.2)^{2} \div 4$$

$$= (-5.4) - 1.96 + 0.04 \div 4$$

$$= (-5.4) - 1.96 + 0.01$$

$$= (-7.36) + 0.01$$

$$= -7.35$$

Order of Operations with Decimals (J)

Name:

Date:

$$(4.3 \div (-2.5) + 2.1) \times (1.5 - (-6.4) + (-4.9))^2$$

$$(-0.2)^2 \div ((9.3 + (-5.1) - 7.9) \times 1.4 + 5.1)$$

$$(-0.5)^2 \times (((-4.3) + (-3.7)) \div (1.9 - 2.9))^2$$

Order of Operations with Decimals (J) Answers

Date:

Solve each expression using the correct order of operations.

$$\left(\frac{4.3 \div (-2.5) + 2.1}{2.1}\right) \times (1.5 - (-6.4) + (-4.9))^{2}$$

$$= \left(\frac{(-1.72) + 2.1}{2.1}\right) \times (1.5 - (-6.4) + (-4.9))^{2}$$

$$= 0.38 \times \left(\frac{1.5 - (-6.4) + (-4.9)}{2}\right)^{2}$$

$$= 0.38 \times \frac{3^{2}}{2}$$

$$= 0.38 \times \frac{3^{2}}{2}$$

$$= 0.38 \times 9$$

$$= 3.42$$

$$(-0.2)^{2} \div \left(\left(\frac{9.3 + (-5.1) - 7.9}{2}\right) \times 1.4 + 5.1\right)$$

$$= (-0.2)^{2} \div \left(\frac{(-3.7) \times 1.4 + 5.1}{2}\right)$$

$$= (-0.2)^{2} \div \left(\frac{(-5.18) + 5.1}{2}\right)$$

$$= \frac{(-0.2)^{2} \div (-0.08)}{2}$$

$$= -0.5$$

$$(-0.5)^{2} \times \left(\left(\frac{(-4.3) + (-3.7)}{2}\right) \div (1.9 - 2.9)\right)^{2}$$

$$= (-0.5)^{2} \times \left(\frac{(-8) \div (-1)}{2}\right)^{2}$$

$$= (-0.5)^{2} \times 8^{2}$$

$$= 0.25 \times 8^{2}$$

 $= 0.25 \times 64$

= 16