

Name: \_\_\_\_\_  
Date: \_\_\_\_\_

# Solving 2 Step Equations

Show all steps:

Part A:

$$1) \quad 4x - 3 = 9 + 3$$

$$\frac{4x}{4} = \frac{12}{4} \quad \boxed{x=3}$$

$$2) \quad x + 5 = 10$$

$$x + 5 - 5 = 10 - 5$$
$$x = 5$$

$$3) \quad 3x + 6 = 15$$

$$3x + 6 - 6 = 15 - 6$$
$$\frac{3x}{3} = \frac{9}{3}$$

$$x = 3$$

$$4) \quad 4x - 2 = 10$$

$$4x - 2 + 2 = 10 + 2$$
$$\frac{4x}{4} = \frac{12}{4}$$

$$\boxed{x=3}$$

$$5) \quad 4x + 3 = -5$$

$$4x + 3 - 3 = -5 - 3$$

$$\frac{4x}{4} = \frac{-8}{4}$$

$$\boxed{x=-2}$$

$$6) \quad 2(x+2) = -8 \quad (\text{bonus question})$$

$$2x + 4 = -8$$

$$2x - 4 + 4 = -8 + 4$$

$$\frac{2x}{2} = \frac{4}{2} \quad x = -2$$

$$7) \quad 3x - 4 = 5$$

$$3x - 4 + 4 = 5 + 4$$

$$\frac{3x}{3} = \frac{9}{3} \quad \boxed{x=3}$$

$$8) \quad 8p + 3 = -29$$

$$8p + 3 - 3 = -29 - 3$$

$$\frac{8p}{8} = \frac{-32}{8}$$

$$\boxed{p=-4}$$

$$9) \quad 63 = 7 + 28b$$

$$28b + 7 = 63$$

$$28b + 7 - 7 = 63 - 7$$

$$\frac{28b}{28} = \frac{56}{28} \quad \boxed{b=2}$$

$$10) \quad 7 = 3x - 2$$

$$3x - 2 = 7$$

$$3x - 2 + 2 = 7 + 2$$

$$\frac{3x}{3} = \frac{9}{3} \quad \boxed{x=3}$$

$$11) 4x + 1 = 13$$

$$4x + 1 - 1 = 13 - 1$$

$$\frac{4x}{4} = \frac{12}{4}$$

$$x = 3$$

$$2) 2x + 1 = 9$$

$$2x + 1 - 1 = 9 - 1$$

$$\frac{2x}{2} = \frac{8}{2}$$

$$x = 4$$

$$3) 8x - 1 = 63$$

$$8x - 1 + 1 = 63 + 1$$

$$\frac{8x}{8} = \frac{64}{8}$$

$$x = 8$$

$$4) 5b + 2 = 17$$

$$5b + 2 - 2 = 17 - 2$$

$$\frac{5b}{5} = \frac{15}{5} \quad b = 3$$

$$5) 7x - 3 = 32$$

$$7x - 3 + 3 = 32 + 3$$

$$\frac{7x}{7} = \frac{35}{7}$$

$$x = 5$$

$$16) 9 + 4x = 17$$

$$4x + 9 = 17$$

$$4x + 9 - 9 = 17 - 9$$

$$\frac{4x}{4} = \frac{8}{4}$$

$$x = 2$$

$$17) 4x - 2 = 20$$

$$4x - 2 + 2 = 20 + 2$$

$$\frac{4x}{4} = \frac{22}{4}$$

$$x = 5.5$$

$$18) 3x + 5 = 23$$

~~3x~~

$$3x + 5 = 23$$

$$3x + 5 - 5 = 23 - 5$$

$$\frac{3x}{3} = \frac{18}{3} \quad x = 6$$

$$19) 3x + 2 = 23$$

$$3x + 2 - 2 = 23 - 2$$

$$\frac{3x}{3} = \frac{21}{3} \quad x = 7$$

$$20) 2x + 6 = 10$$

$$2x + 6 - 6 = 10 - 6$$

$$\frac{2x}{2} = \frac{4}{2}$$

$$x = 2$$

## Part B:

$$1) 4x + 6 = 30$$

$$4x + 6 - 6 = 30 - 6$$

$$\frac{4x}{4} = \frac{24}{4} \quad \boxed{x=6}$$

$$2) 3x + 6 = 0$$

$$3x + 6 - 6 = 0 - 6$$

$$\frac{3x}{3} = \frac{-6}{3}$$

$$x = -2$$

$$3) -8 + 8x = 56$$

$$8x - 8 = 56$$

$$8x - 8 + 8 = 56 + 8$$

$$\frac{8x}{8} = \frac{64}{8}$$

$$\boxed{x=8}$$

$$4) 19 + 13x = 32$$

$$13x + 19 = 32$$

$$13x + 19 - 19 = 32 - 19$$

$$\frac{13x}{13} = \frac{13}{13} \quad x=1$$

$$5) 1x + 1 = 11$$

$$1x + 1 = 11$$

$$1x + 1 - 1 = 11 - 1$$

$$\boxed{x=10}$$

$$6) 5x - 7 = -7$$

$$5x - 7 + 7 = -7 + 7$$

$$5x = 0$$

$$\frac{5x}{5} = \frac{0}{5} \quad x=0$$

$$7) 5x - 3.3 = 7.2$$

$$5x - 3.3 + 3.3 = 7.2 + 3.3$$

$$\frac{5x}{5} = \frac{10.5}{5}$$

$$x = 2.1$$

$$8) 3 = 0.2x - 7$$

$$0.2x - 7 = 3$$

$$0.2x - 7 + 7 = 3 + 7$$

$$0.2x = 10$$

$$\frac{0.2x}{0.2} = \frac{10}{0.2}$$

$$\boxed{x=50}$$

$$9) 1.3x + 1.5 = 5.4$$

$$1.3x + 1.5 - 1.5 = 5.4 - 1.5$$

$$\frac{1.3x}{1.3} = \frac{3.9}{1.3} \quad \boxed{x=3}$$

$$10) 5.2 + 5x = 20.2$$

$$5x + 5.2 = 20.2$$

$$5x + 5.2 - 5.2 = 20.2 - 5.2$$

$$5x = 15$$

$$\frac{5x}{5} = \frac{15}{5}$$

$$\boxed{x=3}$$

# Integer Practice: Solve the Following

Plus Order of Operations.

$$1) -3(2-3) + 5(2-6) =$$

$$-3(-1) + 5(-4) =$$

$$3 + -20 = \boxed{-17}$$

$$2) -3 - (-5 + 3 - 2)(5 + 1) =$$

$$-3 - (-4)(6)$$

$$-3 - (-24)$$

$$-3 - -24 \rightarrow -3 + 24 = \boxed{21}$$

$$3) -2^2 + 5(1 - 2 + 6) =$$

$$-4 + 5(5)$$

$$-4 + 25 = \boxed{21}$$

$$4) -2^3 - 5(1 + 2 - 6) =$$

$$-8 - 5(3 - 6)$$

$$-8 - 5(-3) \rightarrow -8 + 15 = \boxed{7}$$

$$5) -12^2 + (3^2 - 2^2) + 1 =$$

$$-144 + (9 - 4) + 1$$

$$-144 + 5 + 1 = -144 + 6 = \boxed{-138}$$

$$6) 10^3 - (100 - 1) + 2^3$$

$$1000 - (99) + 8$$

$$1000 - 99 + 8 = 1008 - 99 = \boxed{909}$$

$$7) 3^2 - 2^3(1 - 3) + (2 + 1 - 5) =$$

$$9 - 8(-2) + (-2)$$

$$9 + 16 + (-2) = 9 + 16 - 2 = \boxed{23}$$

