

# ALGEBRAIC EQUATIONS DRILLING WS

Name: \_\_\_\_\_ ( ) Class: \_\_\_\_\_ Date: \_\_\_\_\_

## A. SIMPLE ALGEBRAIC EQUATIONS

1.  $1.5y = 15$

2.  $9x = 81$

3.  $2y^2 - 72 = 0$

4.  $3x^3 = 81$

5.  $7z = 21$

6.  $2x - 6 = 20$

## B. GROUPING UNKNOWNNS TO LHS

1.  $3.2x - 1.5 = 1.2 - 1.3x$

2.  $3.2x - 2.5 = 26.3$

3.  $3x - 5 = x + 11$

4.  $15p + 8 - 7p = 24$

5.  $15x + 4 = 4x + 103$

6.  $5p + 45 = -6p - 43$

7.  $7x - 2 = -(x - 4) + 2x$

8.  $4d - 1 = 2d + 9$

9.  $0.38p + 3.5 = 0.18p - 1.3$

10.  $r + 5 = 3r - 2$

11.  $4x + 3 = 3x - 2$

12.  $x + 4 = 26 - x$

13.  $3a - 7 = -a + 11$

## C. EXPANSION AND GROUPING

1.  $9a + 17 = 7(3 + a)$

2.  $4(x - 1) = x - 7$

3.  $(b - 10) + 11(b - 3) = 3b + 5$

4.  $7x - 3(x - 2) = 15$

5.  $5(3 - x) = 7(2x - 5)$

6.  $3(x - 5) - 2 = 6 - (5 - x)$

7.  $5(x + 3) - 2(x - 2) = 7$

8.  $5(p - 6) = 2p.$

9.  $4(4q - 7) = 36$

10.  $2x - 5 = 4 - 3(x - 2)$

11.  $5(3x - 2) - 7(x - 1) = 12$

12.  $4(2x - 1) - 12 = 16 - 2x$

13.  $3x - [3 - 2(3x - 7)] = 37$

14.  $2(x + 3) = 3(x + 4)$

15.  $2p - (3 - 5p) = 13 + 4p + 2$

16.  $2(3 - b) = 5b$

## D. Algebraic Fractional Equations

1.  $\frac{3}{2x+5} = \frac{4}{1-3x}$

3.  $\frac{x}{5} + \frac{4x}{15} = 7$

5.  $\frac{5}{2} - \frac{1}{4}y - \frac{3}{8} + \frac{5y}{4} = 0$

7.  $y - 5 = \frac{y+4}{2}$

9.  $\frac{x}{3} = 2\frac{1}{3} + \frac{3-2x}{5}$

11.  $\frac{x}{6} + x = 14$

13.  $\frac{n-4}{6} - \frac{1}{3} = 7$

15.  $\frac{5-x}{3} = 1 + \frac{1-x}{4}$

17.  $\frac{w-5}{5} = \frac{2w}{8}$

19.  $\frac{5x+2}{6} = 7$

21.  $\frac{2}{3}(4x-1) - \frac{5}{6}(2x+1) = \frac{1}{2}$

23.  $2 - \frac{2x-3}{2} = x - \frac{5x+2}{3}$

25.  $2\left(\frac{1}{5} - 3x\right) - \frac{1}{5}(x+2) = \frac{1}{15}(3x+4)$

27.  $\frac{2}{5}(8k-6) = \frac{3}{4}(2k+5)$

29.  $\frac{5x-1}{8} - \frac{5-7x}{2} = \frac{3(6-x)}{6}$

2.  $\frac{5k}{8} - \frac{3k}{4} = \frac{1}{2}$

4.  $\frac{x}{3} - \frac{x}{5} - 2 = 0$

6.  $m + 2 = \frac{2-m}{3} - 2$

8.  $\frac{2}{3}x + 15 = 4x$

10.  $1.3x - 3.6 = 2\left(\frac{2}{5}x + 1\right)$

12.  $\frac{1}{3}x + 5 = \frac{1}{5}x - 11$

14.  $\frac{p}{4} - \frac{p}{5} = \frac{1}{2}$

16.  $\frac{2x-3}{3} - \frac{x-1}{2} = 4$

18.  $\frac{4x-6}{5} = \frac{x-3}{3}$

20.  $2 - \frac{1}{x} = 3$

22.  $\frac{1}{4}(8n-7) = 3 - \frac{5}{6}(2-n)$

24.  $\frac{1}{3}(y-2) + 2(y-1) = 9$

26.  $\frac{2y}{3} = 2\frac{1}{2} + \frac{y}{4}$

28.  $\frac{2}{3}(6x+5) = 7(x-4.5)$

30.  $\frac{\frac{2x-3}{4} - 2}{x} = 3\frac{1}{2}$