The Distributive Property and
Combining Like Terms Worksheet #2

Name: Key

Date: _____ Pd: _____

Name the coefficient of each term.

1. $-3h$ [-3]

2. $\frac{x}{5}$ $\frac{1}{5}x$ [$\frac{1}{5}$]

3. d [1]

4. $\frac{2xy}{3}$ $\frac{2}{3}xy$ [$\frac{2}{3}$]

Simplify each expression. Write your answer in standard form.

5. $6+3-n$

$6+3+(-n)$

[$-n+9$]

6. $4a^2+2b^2+5b^2$

[$4a^2+7b^2$]

7. $18n+5m+6n-3m$

$18n+5m+6n+(-3m)$

[$2m+24n$]

8. $2(8+x)-3x$

$2(8)+2(x)+(-3x)$

$16+2x+(-3x)$

[$-x+16$]

9. $15b+5(3b-2a)$

$15b+5(3b+(-2a))$

$15b+15b+(-10a)$

[$-10a+30b$]

10. $3(x-y)+9(y-z)$

$3(x+(-y))+9(y+(-z))$

$3x+(-3y)+9y+(-9z)$

[$3x+6y+(-9z)$]

11. $5(13-3x)-3(x+50)$

$5(13+(-3x))+(-3)(x+50)$

$65+(-15x)+(-3x)+(-150)$

[$-18x+(-85)$]

12. $5a^2+6b-2a(a+b)$

$5a^2+6b+(-2a)(a+b)$

$5a^2+6b+(-2a^2)+(-2ab)$

[$3a^2+(-2ab)+6b$]

13. $16x^2+8x+4y+8y^2$

[$16x^2+8x+4y+8y^2$]

14. $(18x+3w)2+3(w-10x)$

$(18x+3w)2+3(w+(-10x))$

$36x+6w+3w+(-30x)$

[$9w+6x$]

15. $0.75(2x-3y)-1.2(y+3x)$

$0.75(2x+(-3y))+(-1.2)(y+3x)$

$1.5x+(-2.25y)+(-1.2y)+(-3.6x)$

[$-2.1x+(-3.45y)$]

16. $5\frac{1}{2}z(x-y)+(z-y)\frac{x}{2}$

$\frac{11}{2}z(x+(-y))+(z+(-y))\frac{1}{2}x$

$\frac{11}{2}xz+(-\frac{11}{2}yz)+\frac{1}{2}xz+(-\frac{1}{2}xy)$

[$-\frac{1}{2}xy+6xz+(-\frac{11}{2}yz)$]

17. $\dfrac{12y-8}{-4}$

$\dfrac{12y+(-8)}{-4}$

$\dfrac{12y}{-4}+\dfrac{(-8)}{-4}$

$-3y+2$

18. $\dfrac{-6p+15}{6}$

$\dfrac{-6p}{6}+\dfrac{15}{6}$

$-p+\dfrac{5}{2}$

19. $\dfrac{2y-4z}{-2}-\dfrac{9z-6y}{3}$

$\left(\dfrac{2y+(-4z)}{-2}\right)-\left(\dfrac{9z+(-6y)}{3}\right)$

$(-y+2z)-(3z+(-2y))$

$-y+2z+(-3z)+2y$

$y+(-z)$

20. $\dfrac{5-25x}{10}+\dfrac{-18-21x}{-12}$

$\left(\dfrac{5+(-25x)}{10}\right)+\left(\dfrac{-18+(-21x)}{-12}\right)$

$\dfrac{5}{10}+\dfrac{(-25x)}{10}+\dfrac{(-18)}{-12}+\dfrac{(-21x)}{-12}$

$\dfrac{1}{2}+\left(-\dfrac{5}{2}x\right)+\dfrac{3}{2}+\dfrac{7}{4}x$

$\dfrac{-10}{4}x+\dfrac{7}{4}x+2$

$-\dfrac{3}{4}x+2$

21. $x^2-\left(3-x^2\right)$

$x^2+(-1)(3+(-x^2))$

$x^2+(-3)+x^2$

$2x^2+(-3)$

22. $a+a(2+b)$

$a+2a+ab$

$3a+ab$

Evaluate each expression for the given values.

23. $\dfrac{2y-x}{x}$ when $x=1$ and $y=-4$

$\dfrac{2(-4)-1}{1}$

$\dfrac{-8-1}{1}$

$\dfrac{-8+(-1)}{1}$

$\dfrac{-9}{1}$

-9

24. $\dfrac{4x}{3y+x}$ when $x=6$ and $y=-8$

$\dfrac{4(6)}{3(-8)+6}$

$\dfrac{24}{(-24)+6}$

$\dfrac{24}{-18}$

$-\dfrac{4}{3}$

25. $\dfrac{-9x}{y^2-1}$ when $x=-3$ and $y=-2$

$\dfrac{-9(-3)}{(-2)^2-1}$

$\dfrac{27}{4-1}$

$\dfrac{27}{3}$

9

26. $\dfrac{y-x}{xy}$ when $x=-6$ and $y=-2$

$\dfrac{-2-(-6)}{-6(-2)}$

$\dfrac{-2+6}{12}$

$\dfrac{4}{12}$

$\dfrac{1}{3}$